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MECHANICAL EQUIPMENT ENVIRONMENTAL QUALIFICATION REPORT FOR LIMERICK GENERATING STATION UNIT 1 PHILADELPHIA ELECTRIC COMPANY

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INTRODUCTION

The Philadelphia Electric Company (PECo) Environmental Qualification Program for Limerick Generating Station (LGS) is described in two separate Environmental Qualification Reports (EQRs): one for electrical equipment and another for active safety-related mechanical equipment. This report addresses the latter, active safety-related mechanical equipment.

The LGS Mechanical Equipment Environmental Qualification (EQ) Program is a documented analysis of active safety-related mechanical equipment exposed to a harsh environment and needed to accomplish or support one or more of the six Nuclear Regulatory Commission (NRC) established safety objectives. This program evaluates the environmental effects of plant operation and postulated accidents on the ability of the equipment to perform its required safety functions.

Mild environment qualification is not included in the EQ Program discussed in this report. A mild environment is an environment that would at no time be significantly more severe than the environment that would occur during normal operation.

1.0 ENVIRONMENTAL DESIGN CRITERIA FOR MECHANICAL EQUIPMENT

General Design Criteria 1, 2, 4, and 23 of Appendix A to 10 CFR 50, Criterion III and XI of Appendix B to 10 CFR 50, 10 CFR 50.55a(h), and 10 CFR 50.49 identify requirements for safety-related equipment which must perform a safety function. Of these criteria only General Design Criteria 1, 2, and 4 of Appendix A, Criterion III and XI of Appendix B to 10 CFR 50, and 10 CFR 50.49 apply to active safety-related mechanical equipment. Since no specific requirements addressing environmental qualification of mechanical equipment have been issued to date by the NRC, applicable methodologies invoked by NUREG-0588, Rev. 1, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," Category II, and 10 CFR 50.49 have been utilized in the EQ Program.

2.0 MECHANICAL EQUIPMENT REQUIRING ENVIRONMENTAL QUALIFICATION

The LGS mechanical equipment which was evaluated in the EQ Program is active, safety-related, exposed to harsh environment, and needed to accomplish or support one or more of the following six safety objectives:

1. Emergency Reactor Shutdown
2. Containment Isolation
3. Reactor Core Cooling
4. Containment Heat Removal
5. Core Residual Heat Removal
6. Prevention of Significant Release of Radioactive Material to the Environment

The list of systems with active safety-related mechanical equipment was developed from the PECo Component Classification Program. The Component Classification Program, which addresses all Nuclear Steam Supply (NSS) and Balance of Plant (BOP) systems and components, includes a review of the postulated event analysis (FSAR, Section 15) to identify systems which have or support a safety-related function. For these systems the safety functions for each mechanical component were determined.

According to the LGS FSAR, all areas inside containment and rooms or areas outside containment which contain high energy lines or post LOCA recirculatory fluid lines are considered to have harsh environments.

Subsequent to identifying mechanical equipment requiring qualification, equipment locations in the plant were determined. All equipment is identified by containment zone or architectural room numbers which have defined boundaries.

Appendix A contains a list of systems categorized by the six safety objectives. Appendix B contains a list, by system, of active safety-related mechanical equipment exposed to a harsh environment.

3.0 ENVIRONMENTAL SERVICE CONDITIONS

The environmental service conditions for mechanical equipment qualification are: normal process, normal ambient, and accident ambient.

Table 1 of the Specification for Environmental Qualification Service Conditions, 8031-M-171 (Reference 1) provides both normal and accident ambient conditions. These conditions are identified by either containment zone or room number and include temperature, pressure, radiation, and humidity.

The Specification for Piping Materials and Instrument Piping Standards, 8031-P-300 (Reference 3) provides normal process conditions for piping only. The normal process conditions for Heating, Ventilating, and Air Conditioning (HVAC) components were obtained from appropriate data sheets of the equipment specifications. The process radiation conditions were obtained from Reference 1.

The methodology used to develop the process, normal ambient, and accident ambient environmental service conditions is discussed in Sections 3.1, 3.2, and 3.3 respectively.

3.1 Process Conditions

3.1.1 Temperature, Pressure, and Humidity

Process temperature, pressure, and humidity values for mechanical equipment were obtained from either Reference 3 or the appropriate equipment specifications. The values obtained from these documents represent design values for pressure and temperature which envelope the less severe actual operating conditions.

3.1.2 Radiation

Process radiation conditions are based on the ambient values obtained from Reference 1. The dose rates for Loss of Coolant Accident (LOCA) ambient values shown in Reference 1 are conservatively based on infinite cloud geometry. The ambient values for areas containing radioactive pipes are conservatively based on piping contact doses summed with the infinite cloud geometry dose.

Process radiation conditions for HVAC equipment were obtained using the ambient values from Reference 1. This conservatively accounts for exposure to atmospherically dispersed sources and background exposure from any radioactive piping.

For fluid containing components, the process conditions were obtained by summing the source based on infinite cloud geometry with modified pipe contact doses. This modification as obtained from Reference 60 accounts for the higher exposure rate within the process fluid above that obtained at pipe contact. The piping contact dose is less than the process fluid dose because of pipe wall and fluid attenuation factors.

3.2 Normal Ambient Conditions

3.2.1 Temperature, Pressure, and Humidity

The temperature, pressure, and humidity conditions specified in Table 1 of Reference 1 will be maintained by the HVAC systems. The LGS FSAR Section 9.4 contains a more detailed analysis of the HVAC system.

3.2.2 Radiation

Each plant area has been categorized into a radiation zone according to expected radiation levels with each room, corridor, and pipeway evaluated for potential radiation sources during normal operation.

Radiation values are shown in Table 1 of Reference 1 and represent the Total Integrated Dose (TID) over a 40-year plant life. These values are based on the assumption that the plant is operating at rated power and 100% load factor for the 40 years. Design source terms are the bases for the radiation doses calculated for each plant area. The normal radiation design source terms are based on a noble gas fission product release rate of 0.35 Ci/sec (after 30 minutes of decay) and the corresponding fission, activation, and corrosion product concentrations in the primary coolant.

Normal radiation source terms, based on assumptions about system and equipment operations and characteristics, provide conservative radioactivity concentrations. For all systems transporting radioactive materials, conservative allowance is made for transit decay while at the same time providing for daughter product formation. Assumptions from NUREG-0016, "Calculation of Releases of Radioactive Materials in Gaseous and Liquid Effluents for Boiling Water Reactors," Revision 1, were also used where applicable.

3.3 Accident Ambient Conditions

3.3.1 Temperature, Pressure, and Humidity Inside Containment

The temperature and pressure conditions inside primary containment for the following spectrum of LOCAs have been calculated using NRC approved methodology:

1. Recirculation line guillotine breaks
2. Main steam line guillotine breaks
3. Intermediate size line breaks
4. Small size line breaks.

Temperature and pressure profiles were developed to bound the temperature and pressure conditions which result from the entire range of breaks. The time dependent pressure and temperature profiles are included in Reference 1.

The following considerations were included in the analysis of post-LOCA temperature and pressure conditions:

1. The worst case single failure
2. Loss of offsite power as required
3. Maximum containment operating temperature
4. Heat load effects.

Environmental conditions inside primary containment have been evaluated for 180 days post-accident. Since the original analysis for post-accident conditions was performed for a duration of 11.6 days, it was necessary to evaluate containment conditions from 11.6 to 180 days. The pressure curve was conservatively

assumed to remain constant after 11.6 days. A plant-specific analysis, assuming the drywell temperature varies directly with the suppression pool temperature, was conducted to determine the temperature from 11.6 to 180 days.

The relative humidity inside primary containment is assumed to remain at 100% for 180 days.

3.3.2 Temperature, Pressure, and Humidity Outside Containment

Post-LOCA and High Energy Line Break (HELB) pressure, temperature, and humidity values and temperature profiles are provided in Reference 1 for areas located outside the primary containment. For each of these areas, Reference 1 provides the extremes resulting from the spectrum of accident conditions.

Time dependent temperature profiles were determined by reviewing the most limiting occurrences following a LOCA pipe break and include the following:

1. Maximum normal reactor enclosure temperature
2. Outdoor air temperature
3. Building heat sink
4. Equipment heat load
5. Operation of safeguard equipment
6. Loss of offsite power
7. The worst case single failure
8. Solar heat loading
9. Primary containment heat load
10. Temperature distribution
11. Cooling effects of various systems operations

The relative humidity inside the reactor enclosure was conservatively assumed to be 90% for 180 days following a LOCA.

The isolation valve compartments located in the reactor enclosure contain equipment required to operate for long-term containment cooling and shutdown cooling following a HELB. Other reactor enclosure compartments contain equipment required for short-term operation to limit the effects of the HELB (i.e., steam

isolation dampers, containment isolation valves). However, the safety-related functions of this equipment will be completed once the blowdown has ceased, thus the equipment is qualified to the peak temperature and pressure values given in Reference 1 for the required duration.

Temperature and pressure conditions in the reactor enclosure were determined by reviewing the most limiting occurrences following a high energy line break. The following considerations were included in the HELB analysis:

1. Loss of offsite power if a trip of the Turbine-Generator System or the Reactor Protection System is a direct consequence of the postulated piping failure

2. Worst case single failure

3. Maximum normal operating temperatures

4. Outside air temperatures

5. Restoration of normal ventilation.

The equipment compartment in which the HELB was postulated to occur has been conservatively estimated to be subjected to an atmosphere of 100% relative humidity until normal ventilation is restored. When offsite power and access become available to reset the tripped steam flooding dampers, the humid air in the compartment will be dispersed by the HVAC system. The relative humidity is assumed to increase only in the compartment containing the HELB because all compartments subject to steam flooding from HELBs are protected by redundant steam flooding dampers at all HVAC supply and exhaust openings. These compartments have steam tight boundaries.

3.3.3 Radiation

Post-LOCA radiation doses were calculated in accordance with NUREG-0737 using source terms specified in NUREG-0737 Item II.B.2 and NUREG-0588.

The following release fractions were used as a basis for determining the concentrations for the radiation dose calculations:

Containment Atmosphere:	100% noble gases, 25% halogens
Depressurized Reactor Liquids:	50% halogens, 1% solids
Suppression Pool Liquid:	50% halogens, 1% solids.

For components inside primary containment, the total integrated gamma doses were calculated by adding the post-LOCA primary containment cloud dose to the 40-year normal operating dose.

TIDs and dose rates for the primary containment are provided in Reference 1.

For compartments in the secondary containment, the post-LOCA gamma radiation levels were conservatively calculated by adding the maximum piping contact dose to the secondary containment cloud dose. Equipment specific doses, accounting for distance and spatial relationships, were calculated on an as-required basis.

Secondary containment piping doses are based on the radionuclide concentrations present in the following systems:

1. Core Spray System
2. HPCI System
3. RCIC System
4. RHR System
5. CRD Hydraulic System
6. RWCU System
7. Gaseous Radwaste System
8. Post-Accident Sampling System
9. Recombiner System
10. Reactor Enclosure Recirculation System
11. Standby Gas Treatment System.

For piping system calculations, the appropriate dilution volumes, system design, and operating modes were considered in accordance with NUREG-0737, Item II.B.2.

The calculation of the radiation doses, in accordance with NUREG-0737, Item II.B.2, is based on the primary containment design leak rate as well as the Reactor Enclosure Recirculation System (RERS) and Standby Gas Treatment System (SGTS) design and operations modes.

The primary and secondary containment beta doses were calculated assuming an infinite cloud geometry and a release of 100% of the core noble gas inventory, 50% of the core halogen inventory, and 1% of the core solid fission products.

The TIDs and dose rates for the reactor enclosure are provided in Reference 1.

Radiation dose reduction factors that can be applied, following a non Design Basis Accident (DBA) event, to the existing LOCA radiation doses have been determined based on the non-DBA source terms provided in NUREG-0588, Section 1.4(1). Additional reduction factors, i.e., distance, piping "deadlegs," event duration, and other event specific parameters can be determined and applied on a case-by-case basis.

3.4 Other Considerations

3.4.1 Thermal Aging

The LGS is a NUREG-0588, Category II plant and according to Section 4 of NUREG-0588, non-metallic (soft) parts of mechanical equipment need be addressed to develop an equipment qualification program. An accelerated thermal aging analysis, provided pre-aging tests were not conducted, is performed on all non-metallic parts which have been identified as safety-related.

The Arrhenius model is used to calculate the thermal aging of non-metallic parts with the results determining the length of time the part can sustain the environmental temperature conditions without an unacceptable level of degradation.

3.4.2 Containment Spray

Equipment inside containment was evaluated for effects of a demineralized water spray used to mitigate the effects of a LOCA. For mechanical equipment, this spray will not adversely effect post-accident operability.

3.4.3 Operability Duration

The operability duration is, according to the LGS FSAR, the length of time the equipment must maintain the ability to perform its safety function. The safety functions include:

1. The ability to initiate short-term protective action

2. The ability to place the plant in a controlled condition

3. The ability to keep the plant in a stable condition after the accident and until personnel are able to enter the plant to inspect, repair, or replace safety-related mechanical equipment.

The determination of operability duration is based on the results of the Component Classification Program and Appendix A of the Specification for General Project Requirements for Environmental Qualification of Class 1E Equipment Located in Harsh Environments (Reference 2). Operability duration for mechanical equipment is determined by identification of the safety-related function of the equipment, and duration times are provided for each mechanical equipment; the longest duration time utilized is 180 days.

3.4.4 Seismic and Hydrodynamic

Qualification of equipment to seismic and hydrodynamic loads is addressed in the Dynamic Qualification Program.

3.4.5 Submergence

Submergence of equipment outside containment may be caused by either a HELB or a Moderate Energy Line Break (MELB). The impact of submergence was determined as part of the Separation Review Program (SRP). The SRP ensures that the reactor can be shut down and maintained in a safe shutdown condition in the event of a

postulated pipe rupture, a non-pipe break generated missile, or a fire. With respect to submergence, analyses were performed on potentially floodable compartments to determine flood elevations. Chapter 5 of the Fire Protection Evaluation Report (FPER) lists the equipment in each fire zone, many of which are susceptible to submergence. Based on a loss of all susceptible equipment in a given compartment and postulating the worst case single active failure, the safe shutdown flowcharts were reviewed to determine that safe shutdown paths remain. In the cases where the loss of susceptible equipment coincident with the single active failure cause the loss of all shutdown paths, appropriate protective actions are taken to qualify the equipment for submergence or to relocate the equipment.

Results from the submergence evaluation appear on the Environmental Qualification Review Records (EQRRs) forms (Appendix D).

4.0 MECHANICAL EQUIPMENT QUALIFICATION ANALYSIS

For the mechanical equipment listed in Appendix B, non-metallic parts are identified on the EQRRs in Appendix D. A determination is made as to whether the non-metallic part is required for the equipment to perform its safety function. If a part is not required, no further analysis is performed and the rationale is provided. If the part is required, it must be constructed of materials with the capabilities to withstand the environment imposed on it. The non-metallic part's degradation must not prevent the equipment from performing its safety functions during its exposure to these environmental conditions.

Part capabilities are compared against the environmental effects of radiation, temperature, and aging, to determine part susceptibility. The Arrhenius model is used to calculate the thermal aging of materials. Effects of pressure and humidity were not analyzed since these are covered in the design specifications.

The EQRR shows the results of the material capability analysis as well as a recommended replacement interval if the material undergoes a significant level of degradation. Recommended replacement schedules based on this analysis will be used in the Maintenance/Surveillance Program.

5.0 ENVIRONMENTAL QUALIFICATION REVIEW AND EVALUATION

Environmental qualification evaluation is performed by comparing the non-metallic part material capabilities, including aging analysis results, to the environmental conditions to which it is exposed. The material capabilities include the ability to withstand temperature, radiation, and aging effects imposed by the environmental conditions. The environmental conditions include both ambient and process conditions. For the operating life of a part, the evaluation includes exposure to the normal environment followed by an accident and/or HELB environmental condition.

Material capabilities for temperature and radiation are obtained from various handbooks and manufacturers. The material degradation as a result of thermal aging is calculated using the Arrhenius model.

The acceptability of non-metallic parts is determined by comparing the material capabilities to the environmental conditions to which they are exposed. If the part can sustain the postulated environmental effects it is considered acceptable. If the part cannot sustain the postulated environmental conditions a replacement schedule or substitute material is recommended.

An EQRR is completed for each item of the active safety-related mechanical equipment identified in Appendix B. The EQRR for each item consists of two forms. The first form contains the process conditions, normal and accident ambient conditions, and the required operating duration after an accident or HELB. The second form is completed for each non-metallic part and contains data such as material capabilities and replacement schedule recommendations. Each equipment item EQRR package consists of at least Form #1 and as many Form #2s as required by the number of non-metallic parts.

Appendix C contains typical examples as well as explanations of each entry that appears on the EQRR form. Appendix D contains all the EQRR forms for the equipment presented in Appendix B.

6.0 CORRECTIVE ACTIONS PLANS

Non-metallic parts, which cannot sustain the postulated environmental effects, are corrected by either replacing the part with a qualified material or adjusting the replacement schedule.

7.0 MAINTENANCE/SURVEILLANCE PROGRAM

The results of the Mechanical Equipment EQ Program will serve as input to PECo's maintenance/surveillance program.

8.0 REPLACEMENT PARTS PROGRAM

All active safety-related mechanical equipment replacement parts, spare parts, and new equipment are purchased to meet or exceed the original specifications as discussed in the FSAR. Replacement parts or equipment identical to the original parts or equipment which are procured in accordance with the original specification are deemed qualified. If identical parts or equipment cannot be procured however, an environmental qualification evaluation will be performed on the procured parts or equipment. This evaluation will be appropriately documented and included in the EQ file.

9.0 REFERENCES

All reference materials used in this report and presented on the EQRRs are shown with an assigned reference code number. The reference code number was assigned to simplify the listing of applicable reference documents on the EQRR forms.

Reference Code Number	Reference
1	Bechtel Specification 8031-M-171, Rev. 2 "Specification for Environmental Qualification Service Conditions."
2	Bechtel Specification 8031-G-18, Rev. 6, "General Project Requirements for Environmental Qualification of Class 1E Equipment Located in Harsh Environments."
3	Bechtel Specification 8031-P-300, Rev. 20, "Specification for Piping Materials and Instrument Piping Standards."
4	Qualification Status of Safety-Related Equipment (QSSRE), sorted by discipline, file listing as of 5/31/83.
5	Valve Index List, sorted by P&ID, run date: 8/1/83, last update: 7/27/83.
6	Mechanical and Electrical Equipment Index, sorted by equipment number, run date: 5/14/83: last update: 5/13/83.
7	Instrument Index, sorted by P&ID, run date: 6/9/83, Rev. 45.
8	M-1 Resister, sorted by Bechtel document number, run date: 6/29/83.
9	A Review of Equipment Aging Theory and Technology, EPRI Report, EPRI NP-1588.
10	Effects of Radiation on Materials and Component, Ed. by J. F. Kircher and R. E. Bowman, Reinhold Publishing Corp., 1964.

Reference Code Number	Reference
11	Handbook of Plastics and Elastomers, C. A. Harper, McGraw-Hill, 1975.
12	Plastics Materials and Processes, S. S. Schwartz and S. H. Goodman, Van Nostrand Reinhold, 1982.
13	Document Control Number 162534, Letter from Bechtel to PECo dated August 22, 1983, "Equipment Qualification - Submergence."
14	Environmental Qualification Report for Electrical Equipment, October, 1983.
15	Shielding and Radiation Zoning Drawing, Reactor Enclosure Unit 1, Plan at el. 177'-0", N-116, Rev. 5.
16	Shielding and Radiation Zoning Drawing, Reactor Enclosure Unit 1, Plan at 31. 201'-0", N-117, Rev. 3.
17	Shielding and Radiation Zoning Drawing, Reactor Enclosure Unit 1, Plan at el. 217'-0", N-118, Rev. 4.
18	Shielding and Radiation Zoning Drawing, Reactor Enclosure Unit 1, Plan at el. 253'-0", N-119, Rev. 4.
19	Shielding and Radiation Zoning Drawing, Reactor Enclosure Unit 1, Plan at el. 283'-0", N-120, Rev. 4.
20	Shielding and Radiation Zoning Drawing, Reactor Enclosure Unit 1, Plan at el. 313'-0", N-121, Rev. 4.
21	Shielding and Radiation Zoning Drawing, Reactor Enclosure Unit 1, Plan at el. 352'-0", N-122, Rev. 4.
22	Bechtel EQRR Number M113-14.00 and 16.00, Rev. 0, June 13, 1983.
23	Bechtel EQRR Number M070-1.00 through 10.00, 20.00 through 32.00, Rev. 0, April 5, 1983.
24	Bechtel EQRR Number M113-4.00 and 6.00, Rev. 0, May 25, 1983.
25	Bechtel EQRR Number M070-11.00 through 17.00 and 33.00 through 36.00, Rev. 0, June 3, 1983.
26	PECo Electrical EQRRs, Appendix E to the Electrical Equipment EQ Program Report.
27	Mechanical Equipment Environmental Qualification Report, December, 1983.

Reference Code Number	Reference
28	LGS FSAR, Section 3.11, Environmental Design of Mechanical and Electrical Equipment, Rev. 20, May, 1983.
29	8031-Q-List, Rev. 13.
30	8031-M-54A, Specification for Centrifugal Fans, Rev. 4.
31	8031-M-58, Specification for Chilled Water Circulation Pumps, Rev. 4.
32	8031-M-69A, Specification for Vane Axial Fans, Rev. 7.
33	8031-M-70, Specification for HVAC Isolation Valves, Class I Seismic, Rev. 3.
34	8031-M-81, Design Specification for Primary Containment Vacuum Relief Valve Assemblies and MSRV Discharge Line Vacuum Relief Valves, Rev. 5.
35	8031-M-106, Specification for Rupture Disks, Rev. 2.
36	8031-M-113, Specification for HVAC Dampers, Class I Seismic, Rev. 7.
37	8031-M-123, Specification for Fan Cabinets- Class I, Rev. 6.
38	8031-M-164, Design Specification for Safeguard Piping Fill Pumps, Rev. 3.
39	8031-M-204B, Design Specification for Nuclear Safety and Relief Valves, Rev. 9.
40	8031-M-231, Design Specification for Excess Flow Check Valves, Rev. 3.
41	8031-M-242, Design Specification for Nuclear Butterfly Control Valves, Rev. 4.
42	8031-M-250A, Design Specification for Quality Assured Control Valves, Rev. 4.
43	8031-P-102, Design Specification for Nuclear Service C. S. Gate, Globe, and Check Valves, 150# - 400# ANSI Rating and Higher, 2-1/2" and Larger, Rev. 10.

Reference Code Number	Reference
44	8031-P-103, Design Specification for Nuclear Service, C.S. Gate, Globe, and Check Valves, 150# through 400# ANSI Rating, 2-1/2" and Larger, Impact Tested Materials, Rev. 9.
45	8031-P-104, Design Specification for Nuclear Service, C.S. Gate, Globe, and Check Valves, 600# ANSI Rating and Higher, 2-1/2" and Larger, Rev. 9.
46	8031-P-105, Design Specification for Nuclear Service, Carbon Steel Gate, Globe, and Check Valves, 600# Rating and Higher, 2-1/2" and Larger, Impact Tested Materials, Rev. 10.
47	8031-P-106, Design Specification for Nuclear Service, S.S. Gate, Globe, and Check Valves, 150# through 400# ANSI Rating, 2-1/2" and Larger, Rev. 10.
48	8031-P-107, Design Specification for Nuclear Service, S.S. Gate, Globe, and Check Valves, 600# ANSI Rating and Higher, 2-1/2" and Larger, Rev. 8.
49	8031-P-116, Design Specification for Spring Loaded, Piston Actuated Check Valves for Feedwater Service, Rev. 5.
50	8031-P-119, Design Specification for Butterfly Valves, Rev. 6.
51	8031-P-129, Design Specification for Soft Seated Check Valves, 2" Size and Smaller in Nuclear Service, Rev. 4.
52	8031-P-350, Specification for Nuclear Service Valves, Rev. 8.
53	8031-P-353, Specification for Nuclear Service Butterfly Valves, Rev. 6.
54	8031-P-354, Specification for Valves, 2" Size and Smaller in Nuclear Service, Rev. 5.
55	NUREG-0588, "Interim Staff Position on Environmental Qualification of Safety-Related Electrical Equipment," Rev. 1, July, 1981.

Reference Code Number

56 LGS FSAR, Section 9.3.1.1, Standby Liquid Control System Probe (TIP) System, Rev. 20, March, 1983.

57 8031-M-1-C41-F004-H-1.2, Purchase Specification for Explosive Valves, Standby Liquid Control System.

58 8031-P-114A, Material Requisition for Nuclear Service Steel Valves, 2" Size and Smaller, Rev. 25.

59 Letter from W.C. McDaniel, Bechtel Corp., to David Sexton, Quadrex Corp., Subject: Conservative Total Integrated Doses, dated 11/30/83, document control number 169567.

60 Letter From E. F. Sproat, Philadelphia Electric Company, to J. J. Millard, Philadelphia Electric Company, Subject: HPCI Turbine Qualification Test, Letter Number PLG-321E, dated 10/6/83.

61 "Selecting Elastomeric Seals for Nuclear Service," by R. Barbarin, Power Engineering, December, 1977.

SAE Technical Paper Series 830214, "Gasket Designs and Applications Using Flexible Graphite."

62 Telecon Record from V. Pichai to Ted Ohneth of Union Carbide, 10/25/83, on Grafoil packing.

63 Bullentin No. 524-207 Technical Information (Union Carbide, Grafoil Laminated Packing Rings).

64 Materials Handbook, George S. Brady and Henry R. Clauser, 11th Edition, McGraw Hill Inc., 1977 (pages 64-65).

65 "Shaft Seals for Power Generating Stations," Crane Bulletin Number S-2005-1 (Chart E).

66 Effects of Radiation on Materials and Components (Book), Edited by John F. Kircher and Richard E. Bowman, Reinhold Publishing Corporation, New York, 1964.

67 Plastics Materials and Processes (Handbook), by S. S. Schwartz and S. H. Goodman, Van Nostrand Reinhold, New York, 1982.

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Reference Code Number	Reference
56	LGS FSAR, Section 7.7.1.6.3, Traversing Incore Probe (TIP) Subsystem, Rev. 19, March 1983.
57	LGS FSAR, Section 9.3.1.1, Station Air Systems, Rev. 20, March, 1983.
58	8031-M-1-C41-F004-H-1.2, Purchase Specification for Explosive Valves, Standby Liquid Control System.
59	8031-P-114A, Material Requisition for Nuclear Service Steel Valves, 2" Size and Smaller, Rev. 25.
60	Letter from W.C. McDaniel, Bechtel Corp., to David Sexton, Quadrex Corp., Subject: Conservative Total Integrated Doses, dated 11/30/83, document control number 169567.
61	Letter From E. F. Sproat, Philadelphia Electric Company, to J. J. Millard, Philadelphia Electric Company, Subject: HPCI Turbine Qualification Test, Letter Number PLG-321E, dated 10/6/83.
62	"Selecting Elastomeric Seals for Nuclear Service," by R. Barbarin, Power Engineering, December, 1977.
63	SAE Technical Paper Series 830214, "Gasket Designs and Applications Using Flexible Graphite."
64	Telecon Record from V. Pichai to Ted Ohneth of Union Carbide, 10/25/83, on Grafoil packing.
65	Bullentin No. 524-207 Technical Information (Union Carbide, Grafoil Laminated Packing Rings).
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Reference Code Number	Reference
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70	Letter from W.C. McDaniel, Bechtel Corp., to David Sexton, Quadrex Corp., Subject: Conservative Total Integrated Doses, dated 11/30/82, document control number 169567.
71	Letter from W.C. McDaniel, Bechtel Corp., to David Sexton, Quadrex Corp., Subject: Conservative Total Integrated Doses, dated 11/30/83, document control number 169567.
72	1983 Materials Reference Issue, Published by Machine Design, April 14, 1983.
73	"More About the Important Things That Keep Happening with DuPont Viton," DuPont Inc. Elastomer Chemicals Department brochure number V-A-4-303 on Radiation Resistance of Viton.
74	"Technical Data for O-Rings and Seals," Publication ORD 5123 of Parker Seals, Parker Hannifin Corp., O-Ring Division, Lexington, Kentucky.
75	Telex from S. Lohmeyer, Comsip Inc., to B. R. Patel, Quadrex Corporation, Subject: Component Clarifications, Telex Number 20620, dated 12/7/83.
76	Arrhenius plot of EP from the Okonite Company's document of November 26, 1975.
77	Arrhenius plot of Neoprene from the Okonite Company's document of November 26, 1975.
78	Chart E, "Radiation and Temperature Limits of Materials" of Crane Packing Company enclosure, July 15, 1982.
79	Arrhenius plot of EPDM from Dekoron Cables.
80	Letter From W.C. McDaniel, Bechtel Corp., to David Sexton, Quadrex Corp., Subject: Conservative Total Integrated Doses, dated 12/12/83, document control number 170296.
81	Telex from C. Dunkerley, Stone and Webster, to G. McKillop, Crane Packing Company, Telex Number 239434, dated 7/19/82.

Reference Code Number	Reference
82	Letter from W.C. McDaniel, Bechtel Corp., to David Sexton, Quadrex Corp., Subject: Conservative Total Integrated Doses, dated 11/30/83, document control number 169567.
83	8031-M-1-E41-C001-K-1.1, Piping Diagram from Operating Manual for Lube Oil Pump 1OP213.
84	LOCA Nuclear Qualification of FR EPDM, Cross-linked Polyolefin and EPDM/Hypalon, Report Number 558-1088, dated October 9, 1981, performed for Eaton Corp., by National Technical System, Washington, D.C. Division, Hartwood, Virginia.
85	EPRI Report EPRI NP-2129, November, 1981, "Radiation Effects on Organic Materials in Nuclear Plants."
86	"The Engineering Properties of Viton," published by DuPont, bulletin number E46315.
87	Meeting Notes, Rockwell/Fisher Air-Actuator Qualification Discussions, dated May 11, 1982, attended by Rockwell, Bechtel, PECo, and Fisher. Letter to Associated Process Controls from Bechtel, dated May 21, 1982 with Attachments.
88	8031-M-1-C11-1020-G-3.1, Process Diagram, Control Rod Drive Hydraulic System, Overall Revision 0.
89	8031-M-1-C11-4010-L-4.1, Design Specification for the Control Rod Drive Hydraulic System.
90	Letter from S. Lemberger, Crane Packing Company, to C. Dunkerley, Stone and Webster, Subject: Elastomers for Nuclear Service, dated July 15, 1982.
91	8031-M-235, Specification for Containment Gas Sampling and Analyzing System, Rev. 4.
9_	8031-M-621, Data Sheets for Self-Acting Pressure Regulators, Rev. 2.
93	Letter from W.C. McDaniel, Bechtel Corp., to David Sexton, Quadrex Corp., Subject: Conservative Total Integrated Doses, dated 12/12/83, document control number 170296.

APPENDIX A

LIST OF SAFETY-RELATED SYSTEMS

(CATEGORIZED BY SAFETY OBJECTIVES)

SAFETY RELATED SYSTEMS
LGS MECHANICAL EQUIPMENT
ENVIRONMENTAL QUALIFICATION REPORT

SYSTEM NAME	SAFETY FUNCTION OBJECTIVE*
CONTAINMENT ATMOSPHERIC CONTROL	CIN
CONTROL ROD DRIVE HYDRAULIC	SS
CORE SPRAY	CC
DRYWELL CHILLED WATER	CIN
DRYWELL HVAC	CIN
RHR, HPCI, RCIC, AND CS ROOMS HVAC	RHR, CC
EMERGENCY SERVICE WATER	RHR, SS, CC
EQUIPMENT AND FLOOR DRAINS	CI
HIGH PRESSURE COOLANT INJECTION	CC
MSIV LEAKAGE CONTROL	EC
NUCLEAR BOILER INSTRUMENTATION	CC, SS, CI, RHR
NUCLEAR BOILER SYSTEM	ALL
PRIMARY CONTAINMENT INSTRUMENT GAS	CI
REACTOR CORE ISOLATION COOLING	CC
REACTOR ENCLOSURE COOLING WATER	CI
REACTOR ENCLOSURE HVAC	EC, RHR, CC
REACTOR ENCLOSURE ISOLATION	EC
REACTOR WATER CLEANUP	CI
REACTOR RECIRCULATION	CI
RESIDUAL HEAT REMOVAL	RHR, SS, CC, CIN
SAFEGUARD PIPING FILL	CI, CIN
STANDBY LIQUID CONTROL	SS
STANDBY GAS TREATMENT	CIN, EC
SUPPRESSION POOL CLEANUP	CI

* CC = CORE COVERAGE
SS = SAFE SHUTDOWN
CI = CONTAINMENT ISOLATION
RHR = RESIDUAL HEAT REMOVAL
CIN = CONTAINMENT INTEGRITY
EC = EFFLUENT CONTROL
ALL = ALL THE ABOVE

APPENDIX B

LIST OF MECHANICAL EQUIPMENT FOR THE EQ PROGRAM

12/6/83

PHILADELPHIA ELECTRIC COMPANY
LIMERICK GENERATING STATION

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F001	MOTOR OPERATED VALVE	R	1
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F002	MOTOR OPERATED VALVE	C	2
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F003	MOTOR OPERATED VALVE	R	3
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F004	MOTOR OPERATED VALVE	R	4
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F006	MOTOR OPERATED VALVE	R	5
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F007	MOTOR OPERATED VALVE	R	6
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F008	MOTOR OPERATED VALVE	R	7
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F011	MOTOR OPERATED VALVE	R	8
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F012	MOTOR OPERATED VALVE	R	9
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-56-1F025	AIR OPERATED VALVE	R	10
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-56-1F026	AIR OPERATED VALVE	R	11
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F028	AIR OPERATED VALVE	R	12
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F029	AIR OPERATED VALVE	R	13
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F041	MOTOR OPERATED VALVE	R	14
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F042	MOTOR OPERATED VALVE	R	15
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-56-1F059	MOTOR OPERATED VALVE	R	16
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F071	MOTOR OPERATED VALVE	R	17
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F072	MOTOR OPERATED VALVE	R	18
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F093	MOTOR OPERATED VALVE	R	19
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F095	MOTOR OPERATED VALVE	R	20
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F100	MOTOR OPERATED VALVE	R	21
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	HV-55-1F105	MOTOR OPERATED VALVE	R	22
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	XV-55-1F024A	FLOW LIMITING VALVE	R	23
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	XV-55-1F024B	FLOW LIMITING VALVE	R	24
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	XV-55-1F024C	FLOW LIMITING VALVE	R	25
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	XV-55-1F024D	FLOW LIMITING VALVE	R	26
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	10P204	HPCI PUMP	R	27
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	10P213	AUX OIL PUMP	R	28
021	HIGH PRESSURE COOLANT INJECTION (HPCI)	10S211	HPCI TURBINE	R	29

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F041	FLOW LIMITING VALVE	R	1
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F043A	FLOW LIMITING VALVE	R	2
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F043B	FLOW LIMITING VALVE	R	3
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F045A	FLOW LIMITING VALVE	R	4
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F045B	FLOW LIMITING VALVE	R	5
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F045C	FLOW LIMITING VALVE	R	6
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F045D	FLOW LIMITING VALVE	R	7
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F047A	FLOW LIMITING VALVE	R	8
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F047B	FLOW LIMITING VALVE	R	9
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F049A	FLOW LIMITING VALVE	R	10
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F049B	FLOW LIMITING VALVE	R	11
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F051A	FLOW LIMITING VALVE	R	12
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F051B	FLOW LIMITING VALVE	R	13
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F051C	FLOW LIMITING VALVE	R	14
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F051D	FLOW LIMITING VALVE	R	15
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F053A	FLOW LIMITING VALVE	R	16
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F053B	FLOW LIMITING VALVE	R	17
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F053C	FLOW LIMITING VALVE	R	18
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F053D	FLOW LIMITING VALVE	R	19
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F055	FLOW LIMITING VALVE	R	20
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F057	FLOW LIMITING VALVE	R	21
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059A	FLOW LIMITING VALVE	R	22
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059B	FLOW LIMITING VALVE	R	23
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059C	FLOW LIMITING VALVE	R	24
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059D	FLOW LIMITING VALVE	R	25
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059E	FLOW LIMITING VALVE	R	26
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059F	FLOW LIMITING VALVE	R	27
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059G	FLOW LIMITING VALVE	R	28
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059H	FLOW LIMITING VALVE	R	29
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059L	FLOW LIMITING VALVE	R	30
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059M	FLOW LIMITING VALVE	R	31
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059N	FLOW LIMITING VALVE	R	32
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059P	FLOW LIMITING VALVE	R	33
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059R	FLOW LIMITING VALVE	R	34
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059S	FLOW LIMITING VALVE	R	35
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059T	FLOW LIMITING VALVE	R	36
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F059U	FLOW LIMITING VALVE	R	37
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F061	FLOW LIMITING VALVE	R	38
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F065A	FLOW LIMITING VALVE	R	39
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F065B	FLOW LIMITING VALVE	R	40
022	NUCLEAR BOILER INSTRUMENTATION	XV-42-1F076	FLOW LIMITING VALVE	R	41

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-105A	MOTOR OPERATED VALVE	R	1
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-105B	MOTOR OPERATED VALVE	R	2
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-125A	MOTOR OP GATE VALVE	R	3
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-125B	MOTOR OP GATE VALVE	R	4
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-130	MOTOR OP GATE VALVE	R	5
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-131	MOTOR OP GATE VALVE	R	6
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-142A	AIR OP GLOBE VALVE	C	7
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-142B	AIR OP GLOBE VALVE	C	8
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-142C	AIR OP GLOBE VALVE	C	9
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-142D	AIR OP GLOBE VALVE	C	10
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-151A	AIR OP GLOBE VALVE	C	11
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-151B	AIR OP GLOBE VALVE	C	12
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-153A	MOTOR OP GLOBE VALVE	R	13
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-153B	MOTOR OP GLOBE VALVE	R	14
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-157A	AIR OP GLOBE VALVE	R	15
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-157B	AIR OP GLOBE VALVE	R	16
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F003A	MOTOR OP GATE VALVE	R	17
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F003B	MOTOR OP GATE VALVE	R	18
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F004A	MOTOR OP GATE VALVE	R	19
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F004B	MOTOR OP GATE VALVE	R	20
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F004C	MOTOR OP GATE VALVE	R	21
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F004D	MOTOR OP GATE VALVE	R	22
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F006A	MOTOR OP GATE VALVE	R	23
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F006B	MOTOR OP GATE VALVE	R	24
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F007A	MOTOR OP GATE VALVE	R	25
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F007B	MOTOR OP GATE VALVE	R	26
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F007C	MOTOR OP GATE VALVE	R	27
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F007D	MOTOR OP GATE VALVE	R	28
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F008	MOTOR OP GATE VALVE	R	29
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F009	MOTOR OP GATE VALVE	C	30
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F010A	MOTOR OP GLOBE VALVE	R	31
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F010B	MOTOR OP GLOBE VALVE	R	32
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F011A	MOTOR OP GATE VALVE	R	33
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F011B	MOTOR OP GATE VALVE	R	34
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F014A	MOTOR OP GATE VALVE	R	35
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F014B	MOTOR OP GATE VALVE	R	36
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F015A	MOTOR OP GLOBE VALVE	R	37
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F015B	MOTOR OP GLOBE VALVE	R	38
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F016A	MOTOR OP GATE VALVE	R	39
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F016B	MOTOR OP GATE VALVE	R	40
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F017A	MOTOR OP GATE VALVE	R	41
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F017B	MOTOR OP GATE VALVE	R	42
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F017C	MOTOR OP GATE VALVE	R	43
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F017D	MOTOR OP GATE VALVE	R	44
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F021A	MOTOR OP GATE VALVE	R	45
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F021B	MOTOR OP GATE VALVE	R	46
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F022	MOTOR OP GATE VALVE	C	47
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F023	MOTOR OP GLOBE VALVE	R	48
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F024A	MOTOR OP GLOBE VALVE	R	49
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F024B	MOTOR OP GLOBE VALVE	R	50
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F026A	MOTOR OP GATE VALVE	R	51
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F026B	MOTOR OP GATE VALVE	R	52
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F027A	MOTOR OP GLOBE VALVE	R	53
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F027B	MOTOR OP GLOBE VALVE	R	54

023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F040	MOTOR OP GATE VALVE	R 55
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F041A	AIR OP CHECK VALVE	C 56
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F041B	AIR OP CHECK VALVE	C 57
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F041C	AIR OP CHECK VALVE	C 58
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F041D	AIR OP CHECK VALVE	C 59
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F047A	MOTOR OP GATE VALVE	R 60
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F047B	MOTOR OP GATE VALVE	R 61
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F049	MOTOR OP GATE VALVE	R 62
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F050A	AIR OP STOP CHECK VALVE	C 63
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F050B	AIR OP STOP CHECK VALVE	C 64
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F052A	MOTOR OP GLOBE VALVE	R 65
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F052B	MOTOR OP GLOBE VALVE	R 66
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F068A	MOTOR OP GLOBE VALVE	R 67
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F068B	MOTOR OP GLOBE VALVE	R 68
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F073	MOTOR OP GATE VALVE	R 69
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F075	MOTOR OP GATE VALVE	R 70
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F079A	AIR OP GLOBE VALVE	R 71
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F079B	AIR OP GLOBE VALVE	R 72
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F080A	AIR OP GLOBE VALVE	R 73
023	RESIDUAL HEAT REMOVAL (RHR)	HV-51-1F080B	AIR OP GLOBE VALVE	R 74
023	RESIDUAL HEAT REMOVAL (RHR)	HVC-51-1F048A	MOTOR OP BUTTERFLY VALVE	R 75
023	RESIDUAL HEAT REMOVAL (RHR)	HVC-51-1F048B	MOTOR OP BUTTERFLY VALVE	R 76
023	RESIDUAL HEAT REMOVAL (RHR)	HVC-51-1F103A	MOTOR OP GLOBE VALVE	R 77
023	RESIDUAL HEAT REMOVAL (RHR)	HVC-51-1F103B	MOTOR OP GLOBE VALVE	R 78
023	RESIDUAL HEAT REMOVAL (RHR)	HVC-51-1F104A	MOTOR OP GLOBE VALVE	R 79
023	RESIDUAL HEAT REMOVAL (RHR)	HVC-51-1F104B	MOTOR OP GLOBE VALVE	R 80
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-101A	PRESSURE RELIEF VALVE	R 81
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-101B	PRESSURE RELIEF VALVE	R 82
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-105A	PRESSURE RELIEF VALVE	R 83
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-105B	PRESSURE RELIEF VALVE	R 84
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-106A	PRESSURE RELIEF VALVE	R 85
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-106B	PRESSURE RELIEF VALVE	R 86
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-122	PRESSURE RELIEF VALVE	R 87
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-155	PRESSURE RELIEF VALVE	R 88
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F025A	PRESSURE RELIEF VALVE	R 89
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F025B	PRESSURE RELIEF VALVE	R 90
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F025C	PRESSURE RELIEF VALVE	R 91
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F025D	PRESSURE RELIEF VALVE	R 92
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F029	PRESSURE RELIEF VALVE	R 93
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F030A	PRESSURE RELIEF VALVE	R 94
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F030B	PRESSURE RELIEF VALVE	R 95
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F030C	PRESSURE RELIEF VALVE	R 96
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F030D	PRESSURE RELIEF VALVE	R 97
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F055A	PRESSURE RELIEF VALVE	R 98
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F055B	PRESSURE RELIEF VALVE	R 99
023	RESIDUAL HEAT REMOVAL (RHR)	PSV-51-1F097	PRESSURE RELIEF VALVE	R 100
023	RESIDUAL HEAT REMOVAL (RHR)	PVC-51-1F051A	AIR OP GLOBE VALVE	R 101
023	RESIDUAL HEAT REMOVAL (RHR)	PVC-51-1F051B	AIR OP GLOBE VALVE	R 102
023	RESIDUAL HEAT REMOVAL (RHR)	XV-51-102A	FLOW LIMITING VALVE	R 103
023	RESIDUAL HEAT REMOVAL (RHR)	XV-51-102B	FLOW LIMITING VALVE	R 104
023	RESIDUAL HEAT REMOVAL (RHR)	XV-51-102C	FLOW LIMITING VALVE	R 105
023	RESIDUAL HEAT REMOVAL (RHR)	XV-51-102D	FLOW LIMITING VALVE	R 106
023	RESIDUAL HEAT REMOVAL (RHR)	XV-51-103A	FLOW LIMITING VALVE	R 107
023	RESIDUAL HEAT REMOVAL (RHR)	XV-51-103B	FLOW LIMITING VALVE	R 108
023	RESIDUAL HEAT REMOVAL (RHR)	XV-51-103C	FLOW LIMITING VALVE	R 109
023	RESIDUAL HEAT REMOVAL (RHR)	XV-51-103D	FLOW LIMITING VALVE	R 110

023	RESIDUAL HEAT REMOVAL (RHR)	1AP202	RHR PUMP	R 111
023	RESIDUAL HEAT REMOVAL (RHR)	1BP202	RHR PUMP	R 112
023	RESIDUAL HEAT REMOVAL (RHR)	1CP202	RHR PUMP	R 113
023	RESIDUAL HEAT REMOVAL (RHR)	1DP202	RHR PUMP	R 114
023	RESIDUAL HEAT REMOVAL (RHR)	1F019	CHECK VALVE	R 115
023	RESIDUAL HEAT REMOVAL (RHR)	1F031A	CHECK VALVE	R 116
023	RESIDUAL HEAT REMOVAL (RHR)	1F031B	CHECK VALVE	R 117
023	RESIDUAL HEAT REMOVAL (RHR)	1F031C	CHECK VALVE	R 118
023	RESIDUAL HEAT REMOVAL (RHR)	1F031D	CHECK VALVE	R 119
023	RESIDUAL HEAT REMOVAL (RHR)	1F046A	CHECK VALVE	R 120
023	RESIDUAL HEAT REMOVAL (RHR)	1F046B	CHECK VALVE	R 121
023	RESIDUAL HEAT REMOVAL (RHR)	1F046C	CHECK VALVE	R 122
023	RESIDUAL HEAT REMOVAL (RHR)	1F046D	CHECK VALVE	R 123
023	RESIDUAL HEAT REMOVAL (RHR)	1F054A	CHECK VALVE	R 124
023	RESIDUAL HEAT REMOVAL (RHR)	1F054B	CHECK VALVE	R 125
023	RESIDUAL HEAT REMOVAL (RHR)	1F078	CHECK VALVE	R 126
023	RESIDUAL HEAT REMOVAL (RHR)	1F089A	CHECK VALVE	R 127
023	RESIDUAL HEAT REMOVAL (RHR)	1F089B	CHECK VALVE	R 128
023	RESIDUAL HEAT REMOVAL (RHR)	1F089C	CHECK VALVE	R 129
023	RESIDUAL HEAT REMOVAL (RHR)	1F089D	CHECK VALVE	R 130
023	RESIDUAL HEAT REMOVAL (RHR)	1F090A	CHECK VALVE	R 131
023	RESIDUAL HEAT REMOVAL (RHR)	1F090B	CHECK VALVE	R 132
023	RESIDUAL HEAT REMOVAL (RHR)	1F090C	CHECK VALVE	R 133
023	RESIDUAL HEAT REMOVAL (RHR)	1F090D	CHECK VALVE	R 134

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
024	CORE SPRAY	HV-52-108	AIR OP CHECK VALVE	R	1
024	CORE SPRAY	HV-52-1F001A	MOTOR OPERATED VALVE	R	2
024	CORE SPRAY	HV-52-1F001B	MOTOR OPERATED VALVE	R	3
024	CORE SPRAY	HV-52-1F001C	MOTOR OPERATED VALVE	R	4
024	CORE SPRAY	HV-52-1F001D	MOTOR OPERATED VALVE	R	5
024	CORE SPRAY	HV-52-1F004A	MOTOR OPERATED VALVE	R	6
024	CORE SPRAY	HV-52-1F004B	MOTOR OPERATED VALVE	R	7
024	CORE SPRAY	HV-52-1F005	MOTOR OP GATE VALVE	R	8
024	CORE SPRAY	HV-52-1F006A	AIR OP CHECK VALVE	C	9
024	CORE SPRAY	HV-52-1F006B	AIR OP CHECK VALVE	C	10
024	CORE SPRAY	HV-52-1F015A	MOTOR OP GLOBE VALVE	R	11
024	CORE SPRAY	HV-52-1F015B	MOTOR OP GLOBE VALVE	R	12
024	CORE SPRAY	HV-52-1F031A	MOTOR OP GLOBE VALVE	R	13
024	CORE SPRAY	HV-52-1F031B	MOTOR OP GLOBE VALVE	R	14
024	CORE SPRAY	HV-52-1F037	MOTOR OP GATE VALVE	R	15
024	CORE SPRAY	HV-52-1F039A	AIR OP GLOBE VALVE	C	16
024	CORE SPRAY	HV-52-1F039B	AIR OP GLOBE VALVE	C	17
024	CORE SPRAY	PSV-52-1F012A	PRESSURE RELIEF VALVE	R	18
024	CORE SPRAY	PSV-52-1F012B	PRESSURE RELIEF VALVE	R	19
024	CORE SPRAY	PSV-52-1F032A	PRESSURE RELIEF VALVE	R	20
024	CORE SPRAY	PSV-52-1F032B	PRESSURE RELIEF VALVE	R	21
024	CORE SPRAY	PSV-52-1F032C	PRESSURE RELIEF VALVE	R	22
024	CORE SPRAY	PSV-52-1F032D	PRESSURE RELIEF VALVE	R	23
024	CORE SPRAY	XV-52-1F018A	FLOW LIMITING VALVE	R	24
024	CORE SPRAY	XV-52-1F018B	FLOW LIMITING VALVE	R	25
024	CORE SPRAY	1045A	CHECK VALVE	R	26
024	CORE SPRAY	1045B	CHECK VALVE	R	27
024	CORE SPRAY	1046A	CHECK VALVE	R	28
024	CORE SPRAY	1046B	CHECK VALVE	R	29
024	CORE SPRAY	1AP206	PUMP	R	30
024	CORE SPRAY	1BP206	PUMP	R	31
024	CORE SPRAY	1CP206	PUMP	R	32
024	CORE SPRAY	1DP206	PUMP	R	33
024	CORE SPRAY	1F003A	CHECK VALVE	R	34
024	CORE SPRAY	1F003B	CHECK VALVE	R	35
024	CORE SPRAY	1F003C	CHECK VALVE	R	36
024	CORE SPRAY	1F003D	CHECK VALVE	R	37
024	CORE SPRAY	1F029A	CHECK VALVE	R	38
024	CORE SPRAY	1F029B	CHECK VALVE	R	39
024	CORE SPRAY	1F030A	CHECK VALVE	R	40
024	CORE SPRAY	1F030B	CHECK VALVE	R	41
024	CORE SPRAY	1F036A	CHECK VALVE	R	42
024	CORE SPRAY	1F036B	CHECK VALVE	R	43
024	CORE SPRAY	1F036C	CHECK VALVE	R	44
024	CORE SPRAY	1F036D	CHECK VALVE	R	45

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
026	NUCLEAR BOILER	HV-41-1F011A	MOTOR OP GATE VALVE	C	1
026	NUCLEAR BOILER	HV-41-1F011B	MOTOR OP GATE VALVE	C	2
026	NUCLEAR BOILER	HV-41-1F016	MOTOR OP GATE VALVE	C	3
026	NUCLEAR BOILER	HV-41-1F019	MOTOR OP GATE VALVE	R	4
026	NUCLEAR BOILER	HV-41-1F022A	MAIN STM LINE ISO VALVE	C	5
026	NUCLEAR BOILER	HV-41-1F022B	MAIN STM LINE ISO VALVE	C	6
026	NUCLEAR BOILER	HV-41-1F022C	MAIN STM LINE ISO VALVE	C	7
026	NUCLEAR BOILER	HV-41-1F022D	MAIN STM LINE ISO VALVE	C	8
026	NUCLEAR BOILER	HV-41-1F028A	MAIN STM LINE ISO VALVE	R	9
026	NUCLEAR BOILER	HV-41-1F028B	MAIN STM LINE ISO VALVE	R	10
026	NUCLEAR BOILER	HV-41-1F028C	MAIN STM LINE ISO VALVE	R	11
026	NUCLEAR BOILER	HV-41-1F028D	MAIN STM LINE ISO VALVE	R	12
026	NUCLEAR BOILER	HV-41-1F032A	MOTOR OP CHECK VALVE	R	13
026	NUCLEAR BOILER	HV-41-1F032B	MOTOR OP CHECK VALVE	R	14
026	NUCLEAR BOILER	HV-41-1F074A	AIR OP CHECK VALVE	R	15
026	NUCLEAR BOILER	HV-41-1F074B	AIR OP CHECK VALVE	R	16
026	NUCLEAR BOILER	HV-41-1F084	AIR OP GLOBE VALVE	C	17
026	NUCLEAR BOILER	HV-41-1F085	AIR OP GLOBE VALVE	R	18
026	NUCLEAR BOILER	PSV-41-1F013A	AIR OP RELIEF VALVE	C	19
026	NUCLEAR BOILER	PSV-41-1F013B	AIR OP RELIEF VALVE	C	20
026	NUCLEAR BOILER	PSV-41-1F013C	AIR OP RELIEF VALVE	C	21
026	NUCLEAR BOILER	PSV-41-1F013D	AIR OP RELIEF VALVE	C	22
026	NUCLEAR BOILER	PSV-41-1F013E	AIR OPERATED VALVE	C	23
026	NUCLEAR BOILER	PSV-41-1F013F	AIR OP RELIEF VALVE	C	24
026	NUCLEAR BOILER	PSV-41-1F013G	AIR OP RELIEF VALVE	C	25
026	NUCLEAR BOILER	PSV-41-1F013H	AIR OPERATED VALVE	C	26
026	NUCLEAR BOILER	PSV-41-1F013J	AIR OP RELIEF VALVE	C	27
026	NUCLEAR BOILER	PSV-41-1F013K	AIR OP RELIEF VALVE	C	28
026	NUCLEAR BOILER	PSV-41-1F013L	AIR OP RELIEF VALVE	C	29
026	NUCLEAR BOILER	PSV-41-1F013M	AIR OP RELIEF VALVE	C	30
026	NUCLEAR BOILER	PSV-41-1F013N	AIR OP RELIEF VALVE	C	31
026	NUCLEAR BOILER	PSV-41-1F013S	AIR OP RELIEF VALVE	C	32
026	NUCLEAR BOILER	PSV-41-1F037A	VACUUM BREAKER	C	33
026	NUCLEAR BOILER	PSV-41-1F037B	VACUUM BREAKER	C	34
026	NUCLEAR BOILER	PSV-41-1F037C	VACUUM BREAKER	C	35
026	NUCLEAR BOILER	PSV-41-1F037D	VACUUM BREAKER	C	36
026	NUCLEAR BOILER	PSV-41-1F037E	VACUUM BREAKER	C	37
026	NUCLEAR BOILER	PSV-41-1F037F	VACUUM BREAKER	C	38
026	NUCLEAR BOILER	PSV-41-1F037G	VACUUM BREAKER	C	39
026	NUCLEAR BOILER	PSV-41-1F037H	VACUUM BREAKER	C	40
026	NUCLEAR BOILER	PSV-41-1F037J	VACUUM BREAKER	C	41
026	NUCLEAR BOILER	PSV-41-1F037K	VACUUM BREAKER	C	42
026	NUCLEAR BOILER	PSV-41-1F037L	VACUUM BREAKER	C	43
026	NUCLEAR BOILER	PSV-41-1F037M	VACUUM BREAKER	C	44
026	NUCLEAR BOILER	PSV-41-1F037N	VACUUM BREAKER	C	45
026	NUCLEAR BOILER	PSV-41-1F037S	VACUUM BREAKER	C	46
026	NUCLEAR BOILER	PSV-41-1F097A	VACUUM BREAKER	C	47
026	NUCLEAR BOILER	PSV-41-1F097B	VACUUM BREAKER	C	48
026	NUCLEAR BOILER	PSV-41-1F097C	VACUUM BREAKER	C	49
026	NUCLEAR BOILER	PSV-41-1F097D	VACUUM BREAKER	C	50
026	NUCLEAR BOILER	PSV-41-1F097E	VACUUM BREAKER	C	51
026	NUCLEAR BOILER	PSV-41-1F097F	VACUUM BREAKER	C	52
026	NUCLEAR BOILER	PSV-41-1F097G	VACUUM BREAKER	C	53
026	NUCLEAR BOILER	PSV-41-1F097H	VACUUM BREAKER	C	54

026	NUCLEAR BOILER	PSV-41-1F097J	VACUUM BREAKER	C 55
026	NUCLEAR BOILER	PSV-41-1F097K	VACUUM BREAKER	C 56
026	NUCLEAR BOILER	PSV-41-1F097L	VACUUM BREAKER	C 57
026	NUCLEAR BOILER	PSV-41-1F097M	VACUUM BREAKER	C 58
026	NUCLEAR BOILER	PSV-41-1F097N	VACUUM BREAKER	C 59
026	NUCLEAR BOILER	PSV-41-1F097S	VACUUM BREAKER	C 60
026	NUCLEAR BOILER	XV-41-1F009	FLOW LIMITING VALVE	R 61
026	NUCLEAR BOILER	XV-41-1F070A	FLOW LIMITING VALVE	R 62
026	NUCLEAR BOILER	XV-41-1F070B	FLOW LIMITING VALVE	R 63
026	NUCLEAR BOILER	XV-41-1F070C	FLOW LIMITING VALVE	R 64
026	NUCLEAR BOILER	XV-41-1F070D	FLOW LIMITING VALVE	R 65
026	NUCLEAR BOILER	XV-41-1F071A	FLOW LIMITING VALVE	R 66
026	NUCLEAR BOILER	XV-41-1F071B	FLOW LIMITING VALVE	R 67
026	NUCLEAR BOILER	XV-41-1F071C	FLOW LIMITING VALVE	R 68
026	NUCLEAR BOILER	XV-41-1F071D	FLOW LIMITING VALVE	R 69
026	NUCLEAR BOILER	XV-41-1F072A	FLOW LIMITING VALVE	R 70
026	NUCLEAR BOILER	XV-41-1F072B	FLOW LIMITING VALVE	R 71
026	NUCLEAR BOILER	XV-41-1F072C	FLOW LIMITING VALVE	R 72
026	NUCLEAR BOILER	XV-41-1F072D	FLOW LIMITING VALVE	R 73
026	NUCLEAR BOILER	XV-41-1F073A	FLOW LIMITING VALVE	R 74
026	NUCLEAR BOILER	XV-41-1F073B	FLOW LIMITING VALVE	R 75
026	NUCLEAR BOILER	XV-41-1F073C	FLOW LIMITING VALVE	R 76
026	NUCLEAR BOILER	XV-41-1F073D	FLOW LIMITING VALVE	R 77
026	NUCLEAR BOILER	1F010A	CHECK VALVE	C 78
026	NUCLEAR BOILER	1F010B	CHECK VALVE	C 79
026	NUCLEAR BOILER	1F024A	CHECK VALVE	C 80
026	NUCLEAR BOILER	1F024B	CHECK VALVE	C 81
026	NUCLEAR BOILER	1F024C	CHECK VALVE	C 82
026	NUCLEAR BOILER	1F024D	CHECK VALVE	C 83
026	NUCLEAR BOILER	1F029A	CHECK VALVE	R 84
026	NUCLEAR BOILER	1F029B	CHECK VALVE	R 85
026	NUCLEAR BOILER	1F029C	CHECK VALVE	R 86
026	NUCLEAR BOILER	1F029D	CHECK VALVE	R 87
026	NUCLEAR BOILER	1F036A	CHECK VALVE	C 88
026	NUCLEAR BOILER	1F036B	CHECK VALVE	C 89
026	NUCLEAR BOILER	1F036C	CHECK VALVE	C 90
026	NUCLEAR BOILER	1F036D	CHECK VALVE	C 91
026	NUCLEAR BOILER	1F036E	CHECK VALVE	C 92
026	NUCLEAR BOILER	1F036F	CHECK VALVE	C 93
026	NUCLEAR BOILER	1F036G	CHECK VALVE	C 94
026	NUCLEAR BOILER	1F036H	CHECK VALVE	C 95
026	NUCLEAR BOILER	1F036J	CHECK VALVE	C 96
026	NUCLEAR BOILER	1F036K	CHECK VALVE	C 97
026	NUCLEAR BOILER	1F036L	CHECK VALVE	C 98
026	NUCLEAR BOILER	1F036M	CHECK VALVE	C 99
026	NUCLEAR BOILER	1F036N	CHECK VALVE	C 100
026	NUCLEAR BOILER	1F036S	CHECK VALVE	C 101

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
028	MSIV LEAKAGE CONTROL	HV-40-1F001B	MOTOR OP GLOBE VALVE	R	1
028	MSIV LEAKAGE CONTROL	HV-40-1F001F	MOTOR OP GLOBE VALVE	R	2
028	MSIV LEAKAGE CONTROL	HV-40-1F001K	MOTOR OP GLOBE VALVE	R	3
028	MSIV LEAKAGE CONTROL	HV-40-1F001P	MOTOR OP GLOBE VALVE	R	4
028	MSIV LEAKAGE CONTROL	HV-40-1F002B	MOTOR OP GLOBE VALVE	R	5
028	MSIV LEAKAGE CONTROL	HV-40-1F002F	MOTOR OP GLOBE VALVE	R	6
028	MSIV LEAKAGE CONTROL	HV-40-1F002K	MOTOR OP GLOBE VALVE	R	7
028	MSIV LEAKAGE CONTROL	HV-40-1F002P	MOTOR OP GLOBE VALVE	R	8
028	MSIV LEAKAGE CONTROL	HV-40-1F003B	MOTOR OP GLOBE VALVE	R	9
028	MSIV LEAKAGE CONTROL	HV-40-1F003F	MOTOR OP GLOBE VALVE	R	10
028	MSIV LEAKAGE CONTROL	HV-40-1F003K	MOTOR OP GLOBE VALVE	R	11
028	MSIV LEAKAGE CONTROL	HV-40-1F003P	MOTOR OP GLOBE VALVE	R	12
028	MSIV LEAKAGE CONTROL	HV-40-1F006	MOTOR OP GLOBE VALVE	R	13
028	MSIV LEAKAGE CONTROL	HV-40-1F007	MOTOR OP GLOBE VALVE	R	14
028	MSIV LEAKAGE CONTROL	HV-40-1F008	MOTOR OP GLOBE VALVE	R	15
028	MSIV LEAKAGE CONTROL	HV-40-1F009	MOTOR OP GLOBE VALVE	R	16
028	MSIV LEAKAGE CONTROL	XV-40-101B	FLOW LIMITING VALVE	R	17
028	MSIV LEAKAGE CONTROL	XV-40-101F	FLOW LIMITING VALVE	R	18
028	MSIV LEAKAGE CONTROL	XV-40-101K	FLOW LIMITING VALVE	R	19
028	MSIV LEAKAGE CONTROL	XV-40-101P	FLOW LIMITING VALVE	R	20
028	MSIV LEAKAGE CONTROL	1AK209	BLOWER	R	21
028	MSIV LEAKAGE CONTROL	1EK209	BLOWER	R	22
028	MSIV LEAKAGE CONTROL	1F010	CHECK VALVE	R	23
028	MSIV LEAKAGE CONTROL	1F011	CHECK VALVE	R	24
028	MSIV LEAKAGE CONTROL	10K208	BLOWER	R	25

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
029	REACTOR WATER CLEANUP	HV-44-1F001	MOTOR OP VALVE	C	1
029	REACTOR WATER CLEANUP	HV-44-1F004	MOTOR OP VALVE	R	2
029	REACTOR WATER CLEANUP	XV-44-102A	FLOW LIMITING VALVE	R	3
029	REACTOR WATER CLEANUP	XV-44-102B	FLOW LIMITING VALVE	R	4
029	REACTOR WATER CLEANUP	XV-44-102C	FLOW LIMITING VALVE	R	5
029	REACTOR WATER CLEANUP	XV-44-102D	FLOW LIMITING VALVE	R	6
029	REACTOR WATER CLEANUP	XV-44-170	FLOW LIMITING VALVE	R	7
029	REACTOR WATER CLEANUP	XV-44-171	FLOW LIMITING VALVE	R	8

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
032	REACTOR RECIRCULATION	HV-43-1F019	AIR OP GLOBE VALVE	C	1
032	REACTOR RECIRCULATION	HV-43-1F020	AIR OP GLOBE VALVE	R	2
032	REACTOR RECIRCULATION	XV-43-103A	FLOW LIMITING VALVE	R	3
032	REACTOR RECIRCULATION	XV-43-103B	FLOW LIMITING VALVE	R	4
032	REACTOR RECIRCULATION	XV-43-1F003A	FLOW LIMITING VALVE	R	5
032	REACTOR RECIRCULATION	XV-43-1F003B	FLOW LIMITING VALVE	R	6
032	REACTOR RECIRCULATION	XV-43-1F004A	FLOW LIMITING VALVE	R	7
032	REACTOR RECIRCULATION	XV-43-1F004B	FLOW LIMITING VALVE	R	8
032	REACTOR RECIRCULATION	XV-43-1F009A	FLOW LIMITING VALVE	R	9
032	REACTOR RECIRCULATION	XV-43-1F009B	FLOW LIMITING VALVE	R	10
032	REACTOR RECIRCULATION	XV-43-1F009C	FLOW LIMITING VALVE	R	11
032	REACTOR RECIRCULATION	XV-43-1F009D	FLOW LIMITING VALVE	R	12
032	REACTOR RECIRCULATION	XV-43-1F010A	FLOW LIMITING VALVE	R	13
032	REACTOR RECIRCULATION	XV-43-1F010B	FLOW LIMITING VALVE	R	14
032	REACTOR RECIRCULATION	XV-43-1F010C	FLOW LIMITING VALVE	R	15
032	REACTOR RECIRCULATION	XV-43-1F010D	FLOW LIMITING VALVE	R	16
032	REACTOR RECIRCULATION	XV-43-1F011A	FLOW LIMITING VALVE	R	17
032	REACTOR RECIRCULATION	XV-43-1F011B	FLOW LIMITING VALVE	R	18
032	REACTOR RECIRCULATION	XV-43-1F011C	FLOW LIMITING VALVE	R	19
032	REACTOR RECIRCULATION	XV-43-1F011D	FLOW LIMITING VALVE	R	20
032	REACTOR RECIRCULATION	XV-43-1F012A	FLOW LIMITING VALVE	R	21
032	REACTOR RECIRCULATION	XV-43-1F012B	FLOW LIMITING VALVE	R	22
032	REACTOR RECIRCULATION	XV-43-1F012C	FLOW LIMITING VALVE	R	23
032	REACTOR RECIRCULATION	XV-43-1F012D	FLOW LIMITING VALVE	R	24
032	REACTOR RECIRCULATION	XV-43-1F040A	FLOW LIMITING VALVE	R	25
032	REACTOR RECIRCULATION	XV-43-1F040B	FLOW LIMITING VALVE	R	26
032	REACTOR RECIRCULATION	XV-43-1F040C	FLOW LIMITING VALVE	R	27
032	REACTOR RECIRCULATION	XV-43-1F040D	FLOW LIMITING VALVE	R	28
032	REACTOR RECIRCULATION	1004A	CHECK VALVE	C	29
032	REACTOR RECIRCULATION	1004B	CHECK VALVE	C	30

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
034	REACTOR CORE ISOLATION COOLING (RCIC)	FV-50-113	GOVERNING GLOBE VALVE	R	1
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-50-112	MOTOR OP GLOBE VALVE	R	2
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F002	MOTOR OP GLOBE VALVE	R	3
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F007	MOTOR OP GLOBE VALVE	C	4
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F008	MOTOR OP GLOBE VALVE	R	5
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F010	MOTOR OP GATE VALVE	R	6
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F012	MOTOR OP GATE VALVE	R	7
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F013	MOTOR OP GATE VALVE	R	8
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F019	MOTOR OP GLOBE VALVE	R	9
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F022	MOTOR OP GLOBE VALVE	R	10
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F025	AIR OP GLOBE VALVE	R	11
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F026	AIR OP GLOBE VALVE	R	12
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F029	MOTOR OP GATE VALVE	R	13
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F031	MOTOR OP GATE VALVE	R	14
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-50-1F045	MOTOR OP GLOBE VALVE	R	15
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-50-1F046	MOTOR OP GLOBE VALVE	R	16
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F060	MOTOR OP GATE VALVE	R	17
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F076	MOTOR OP GLOBE VALVE	R	18
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F080	MOTOR OP GATE VALVE	R	19
034	REACTOR CORE ISOLATION COOLING (RCIC)	HV-49-1F084	MOTOR OP GATE VALVE	R	20
034	REACTOR CORE ISOLATION COOLING (RCIC)	LV-50-110	LEVEL CONTROL VALVE	R	21
034	REACTOR CORE ISOLATION COOLING (RCIC)	LV-49-1F054	AIR OP GLOBE VALVE	R	22
034	REACTOR CORE ISOLATION COOLING (RCIC)	PCV-50-1F015	PRESSURE CONTROL VALVE	R	23
034	REACTOR CORE ISOLATION COOLING (RCIC)	XV-49-1F044A	FLOW LIMITING VALVE	R	24
034	REACTOR CORE ISOLATION COOLING (RCIC)	XV-49-1F044B	FLOW LIMITING VALVE	R	25
034	REACTOR CORE ISOLATION COOLING (RCIC)	XV-49-1F044C	FLOW LIMITING VALVE	R	26
034	REACTOR CORE ISOLATION COOLING (RCIC)	XV-49-1F044D	FLOW LIMITING VALVE	R	27
034	REACTOR CORE ISOLATION COOLING (RCIC)	1017	CHECK VALVE	R	28
034	REACTOR CORE ISOLATION COOLING (RCIC)	1018	CHECK VALVE	R	29
034	REACTOR CORE ISOLATION COOLING (RCIC)	10P203	PUMP (TURBINE DRIVEN)	R	30
034	REACTOR CORE ISOLATION COOLING (RCIC)	10S212	TURBINE	R	31
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F001	STOP CHECK VALVE	R	32
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F011	CHECK VALVE	R	33
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F014	CHECK VALVE	R	34
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F021	CHECK VALVE	R	35
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F028	CHECK VALVE	R	36
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F030	CHECK VALVE	R	37
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F047	CHECK VALVE	R	38
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F064	CHECK VALVE	R	39
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F065	CHECK VALVE	R	40
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F068	CHECK VALVE	R	41
034	REACTOR CORE ISOLATION COOLING (RCIC)	1F081	CHECK VALVE	R	42

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
035	STANDBY LIQUID CONTROL	HV-48-1F006A	MTR OP STOP CK GLB VALVE	R	1
035	STANDBY LIQUID CONTROL	HV-48-1F006B	MTR OP STOP CK GLB VALVE	R	2
035	STANDBY LIQUID CONTROL	PSV-48-1F029A	PRESSURE RELIEF VALVE	R	3
035	STANDBY LIQUID CONTROL	PSV-48-1F029B	PRESSURE RELIEF VALVE	R	4
035	STANDBY LIQUID CONTROL	PSV-48-1F029C	PRESSURE RELIEF VALVE	R	5
035	STANDBY LIQUID CONTROL	XV-48-1F004A	EXPLOSIVE OP GATE VALVE	R	6
035	STANDBY LIQUID CONTROL	XV-48-1F004B	EXPLOSIVE OP GATE VALVE	R	7
035	STANDBY LIQUID CONTROL	XV-48-1F004C	EXPLOSIVE OP GATE VALVE	R	8
035	STANDBY LIQUID CONTROL	1AP208	SLC INJECTION PUMP	R	9
035	STANDBY LIQUID CONTROL	1BP208	SLC INJECTION PUMP	R	10
035	STANDBY LIQUID CONTROL	1CP208	SLC INJECTION PUMP	R	11
035	STANDBY LIQUID CONTROL	1F007	CHECK VALVE	C	12
035	STANDBY LIQUID CONTROL	1F033A	CHECK VALVE	R	13
035	STANDBY LIQUID CONTROL	1F033B	CHECK VALVE	R	14
035	STANDBY LIQUID CONTROL	1F033C	CHECK VALVE	R	15

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
036	CONTROL ROD DRIVE HYDRAULIC	PSE-47-1-32	PRESSURE RELIEF ELEMENT	R	1
036	CONTROL ROD DRIVE HYDRAULIC	XV-47-1-26	AIR OP GLOBE VALVE	R	2
036	CONTROL ROD DRIVE HYDRAULIC	XV-47-1-27	AIR OP GLOBE VALVE	R	3
036	CONTROL ROD DRIVE HYDRAULIC	XV-47-1F011	AIR OP GLOBE VALVE	R	4
036	CONTROL ROD DRIVE HYDRAULIC	XV-47-1F012	AIR OP GLOBE VALVE	R	5
036	CONTROL ROD DRIVE HYDRAULIC	XV-47-1F180	AIR OP GLOBE VALVE	R	6
036	CONTROL ROD DRIVE HYDRAULIC	XV-47-1F181	AIR OP GLOBE VALVE	R	7
036	CONTROL ROD DRIVE HYDRAULIC	1-14	CHECK VALVE	R	8
036	CONTROL ROD DRIVE HYDRAULIC	1-15	CHECK VALVE	R	9
036	CONTROL ROD DRIVE HYDRAULIC	1-38	CHECK VALVE	R	10
036	CONTROL ROD DRIVE HYDRAULIC	1F161A	CHECK VALVE	R	11
036	CONTROL ROD DRIVE HYDRAULIC	1F161B	CHECK VALVE	R	12

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-104	AIR OP BUTTRFLY VALVE	R	1
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-105	MOTOR OP GLOBE VALVE	R	2
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-109	MOTOR OP BUTTRFLY VALVE	R	3
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-111	MOTOR OP GLOBE VALVE	R	4
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-112	MOTOR OP BUTTRFLY VALVE	R	5
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-114	AIR OP BUTTRFLY VALVE	R	6
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-115	MOTOR OP BUTTRFLY VALVE	R	7
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-116	MOTOR OP GLOBE VALVE	R	8
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-117	AIR OP GLOBE VALVE	R	9
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-118	AIR OP GLOBE VALVE	R	10
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-121	AIR OP BUTTRFLY VALVE	R	11
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-123	AIR OP BUTTRFLY VALVE	R	12
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-124	AIR OP BUTTRFLY VALVE	R	13
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-131	AIR OP BUTTRFLY VALVE	R	14
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-135	MOTOR OP BUTTRFLY VALVE	R	15
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-147	MOTOR OP BUTTRFLY VALVE	R	16
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-160A	MOTOR OP GATE VALVE	R	17
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-160B	MOTOR OP GATE VALVE	R	18
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-161	MOTOR OP BUTTRFLY VALVE	R	19
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-162	MOTOR OP BUTTRFLY VALVE	R	20
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-163	MOTOR OP BUTTRFLY VALVE	R	21
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-164	MOTOR OP BUTTRFLY VALVE	R	22
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-168A	MOTOR OP GLOBE VALVE	R	23
040	CONTAINMENT ATMOSPHERE CONTROL	HV-57-168B	MOTOR OP GLOBE VALVE	R	24
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-129A	PRESSURE CONTROL VALVE	R	25
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-129B	PRESSURE CONTROL VALVE	R	26
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-172A	PRESSURE REGULATOR	R	27
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-172B	PRESSURE REGULATOR	R	28
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-172C	PRESSURE REGULATOR	R	29
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-173A	BACKPRESSURE REGULATOR	R	30
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-173B	BACKPRESSURE REGULATOR	R	31
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-176A	PRESSURE CONTROL VALVE	R	32
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-176B	PRESSURE CONTROL VALVE	R	33
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-176C	PRESSURE CONTROL VALVE	R	34
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-177A	PRESSURE CONTROL VALVE	R	35
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-177B	PRESSURE CONTROL VALVE	R	36
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-199A	PRESSURE CONTROL VALVE	R	37
040	CONTAINMENT ATMOSPHERE CONTROL	PCV-57-199B	PRESSURE CONTROL VALVE	R	38
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-127A	DIFF PRESS REDUCE REG	R	39
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-127B	DIFF PRESS REDUCE REG	R	40
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-128A	DIFF PRESS REDUCE REG	R	41
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-128B	DIFF PRESS REDUCE REG	R	42
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-150	DIFF PRESS REDUCE REG	R	43
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-151	DIFF PRESS REDUCE REG	R	44
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-187	DIFF PRESS REDUCE REG	R	45
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-188	DIFF PRESS REDUCE REG	R	46
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-197A	DIFF PRESS REDUCE REG	R	47
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-197B	DIFF PRESS REDUCE REG	R	48
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-198A	DIFF PRESS REDUCE REG	R	49
040	CONTAINMENT ATMOSPHERE CONTROL	PDCV-57-198B	DIFF PRESS REDUCE REG	R	50
040	CONTAINMENT ATMOSPHERE CONTROL	PSV-57-129	PRESSURE RELIEF VALVE	R	51
040	CONTAINMENT ATMOSPHERE CONTROL	PSV-57-137A	VACUUM RELIEF VALVE ASM	C	52
040	CONTAINMENT ATMOSPHERE CONTROL	PSV-57-137B	VACUUM RELIEF VALVE ASM	C	53
040	CONTAINMENT ATMOSPHERE CONTROL	PSV-57-137C	VACUUM RELIEF VALVE ASM	C	54

040	CONTAINMENT ATMOSPHERE CONTROL	PSV-57-137D	VACUUM RELIEF VALVE ASM	C	55
040	CONTAINMENT ATMOSPHERE CONTROL	PSV-57-199	PRESSURE RELIEF VALVE	R	56
040	CONTAINMENT ATMOSPHERE CONTROL	1068A	CHECK VALVE	R	57
040	CONTAINMENT ATMOSPHERE CONTROL	1068B	CHECK VALVE	R	58
040	CONTAINMENT ATMOSPHERE CONTROL	1109	CHECK VALVE	R	59
040	CONTAINMENT ATMOSPHERE CONTROL	1110	CHECK VALVE	R	60
040	CONTAINMENT ATMOSPHERE CONTROL	1111	CHECK VALVE	R	61
040	CONTAINMENT ATMOSPHERE CONTROL	1112	CHECK VALVE	R	62
040	CONTAINMENT ATMOSPHERE CONTROL	1113	CHECK VALVE	R	63
040	CONTAINMENT ATMOSPHERE CONTROL	1114	CHECK VALVE	R	64
040	CONTAINMENT ATMOSPHERE CONTROL	1115	CHECK VALVE	R	65
040	CONTAINMENT ATMOSPHERE CONTROL	1116	CHECK VALVE	R	66
040	CONTAINMENT ATMOSPHERE CONTROL	1117A	CHECK VALVE	R	67
040	CONTAINMENT ATMOSPHERE CONTROL	1117B	CHECK VALVE	R	68
040	CONTAINMENT ATMOSPHERE CONTROL	1118A	CHECK VALVE	R	69
040	CONTAINMENT ATMOSPHERE CONTROL	1118B	CHECK VALVE	R	70
040	CONTAINMENT ATMOSPHERE CONTROL	1AP253	PUMP	R	71
040	CONTAINMENT ATMOSPHERE CONTROL	1AP254	PUMP	R	72
040	CONTAINMENT ATMOSPHERE CONTROL	1BP253	PUMP	R	73
040	CONTAINMENT ATMOSPHERE CONTROL	1BP254	PUMP	R	74

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
051	EMERGENCY SERVICE WATER	HV-11-041	AIR OP GATE VALVE	R	1
051	EMERGENCY SERVICE WATER	HV-11-042	AIR OP GLOBE VALVE	R	2
051	EMERGENCY SERVICE WATER	HV-11-043	AIR OP GATE VALVE	R	3
051	EMERGENCY SERVICE WATER	HV-11-044	AIR OP GATE VALVE	R	4
051	EMERGENCY SERVICE WATER	HV-11-048	AIR OP GLOBE VALVE	R	5
051	EMERGENCY SERVICE WATER	HV-11-049	AIR OP GLOBE VALVE	R	6
051	EMERGENCY SERVICE WATER	HV-11-071	AIR OP GATE VALVE	R	7
051	EMERGENCY SERVICE WATER	HV-11-072	AIR OP GLOBE VALVE	R	8
051	EMERGENCY SERVICE WATER	HV-11-073	AIR OP GATE VALVE	R	9
051	EMERGENCY SERVICE WATER	HV-11-074	AIR OP GATE VALVE	R	10
051	EMERGENCY SERVICE WATER	HV-11-078	AIR OP GLOBE VALVE	R	11
051	EMERGENCY SERVICE WATER	HV-11-079	AIR OP GLOBE VALVE	R	12
051	EMERGENCY SERVICE WATER	HV-11-101A	AIR OP GLOBE VALVE	R	13
051	EMERGENCY SERVICE WATER	HV-11-101B	AIR OP GLOBE VALVE	R	14
051	EMERGENCY SERVICE WATER	HV-11-101C	AIR OP GLOBE VALVE	R	15
051	EMERGENCY SERVICE WATER	HV-11-101D	AIR OP GLOBE VALVE	R	16
051	EMERGENCY SERVICE WATER	HV-11-101E	AIR OP GLOBE VALVE	R	17
051	EMERGENCY SERVICE WATER	HV-11-101F	AIR OP GLOBE VALVE	R	18
051	EMERGENCY SERVICE WATER	HV-11-101G	AIR OP GLOBE VALVE	R	19
051	EMERGENCY SERVICE WATER	HV-11-101H	AIR OP GLOBE VALVE	R	20
051	EMERGENCY SERVICE WATER	HV-11-103A	AIR OP GLOBE VALVE	R	21
051	EMERGENCY SERVICE WATER	HV-11-103B	AIR OP GLOBE VALVE	R	22
051	EMERGENCY SERVICE WATER	HV-11-104A	AIR OP GATE VALVE	R	23
051	EMERGENCY SERVICE WATER	HV-11-104B	AIR OPERATED GATE VALVE	R	24
051	EMERGENCY SERVICE WATER	HV-11-104C	AIR OP GATE VALVE	R	25
051	EMERGENCY SERVICE WATER	HV-11-104D	AIR OPERATED GATE VALVE	R	26
051	EMERGENCY SERVICE WATER	HV-11-104E	AIR OP GATE VALVE	R	27
051	EMERGENCY SERVICE WATER	HV-11-104F	AIR OPERATED GATE VALVE	R	28
051	EMERGENCY SERVICE WATER	HV-11-104G	AIR OP GATE VALVE	R	29
051	EMERGENCY SERVICE WATER	HV-11-104H	AIR OPERATED GATE VALVE	R	30
051	EMERGENCY SERVICE WATER	HV-11-106A	AIR OP GLOBE VALVE	R	31
051	EMERGENCY SERVICE WATER	HV-11-106B	AIR OP GLOBE VALVE	R	32
051	EMERGENCY SERVICE WATER	HV-11-121	AIR OP GATE VALVE	R	33
051	EMERGENCY SERVICE WATER	HV-11-123	AIR OP GATE VALVE	R	34
051	EMERGENCY SERVICE WATER	HV-11-124	AIR OP GATE VALVE	R	35
051	EMERGENCY SERVICE WATER	HV-11-125	AIR OP GATE VALVE	R	36
051	EMERGENCY SERVICE WATER	HV-11-126	AIR OP GATE VALVE	R	37
051	EMERGENCY SERVICE WATER	HV-11-127	AIR OP GATE VALVE	R	38
051	EMERGENCY SERVICE WATER	HV-11-128	AIR OP GATE VALVE	R	39
051	EMERGENCY SERVICE WATER	0029	CHECK VALVE	R	40
051	EMERGENCY SERVICE WATER	0036	CHECK VALVE	R	41
051	EMERGENCY SERVICE WATER	0062	CHECK VALVE	R	42
051	EMERGENCY SERVICE WATER	1007	CHECK VALVE	R	43
051	EMERGENCY SERVICE WATER	1009	CHECK VALVE	R	44
051	EMERGENCY SERVICE WATER	1011	CHECK VALVE	R	45
051	EMERGENCY SERVICE WATER	1012	CHECK VALVE	R	46
051	EMERGENCY SERVICE WATER	1043	CHECK VALVE	R	47
051	EMERGENCY SERVICE WATER	1044	CHECK VALVE	R	48

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
055	REACTOR ENCLOSURE COOLING WATER	HV-13-106	MOTOR OP GATE VALVE	R	1
055	REACTOR ENCLOSURE COOLING WATER	HV-13-107	MOTOR OP GATE VALVE	R	2

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
058	PRIMARY CONTAINMENT INSTRUMENT GAS	HV-59-101	MOTOR OP GLOBE VALVE	C	1
058	PRIMARY CONTAINMENT INSTRUMENT GAS	HV-59-102	AIR OPERATED VALVE	R	2
058	PRIMARY CONTAINMENT INSTRUMENT GAS	HV-59-129A	AIR OP GLOBE VALVE	R	3
058	PRIMARY CONTAINMENT INSTRUMENT GAS	HV-59-129B	AIR OP GLOBE VALVE	R	4
058	PRIMARY CONTAINMENT INSTRUMENT GAS	HV-59-131	AIR OP GLOBE VALVE	R	5
058	PRIMARY CONTAINMENT INSTRUMENT GAS	HV-59-135	AIR OP GLOBE VALVE	R	6
058	PRIMARY CONTAINMENT INSTRUMENT GAS	HV-59-151A	MOTOR OP GLOBE VALVE	R	7
058	PRIMARY CONTAINMENT INSTRUMENT GAS	HV-59-151B	MOTOR OP GLOBE VALVE	R	8
058	PRIMARY CONTAINMENT INSTRUMENT GAS	PSV-59-152A	PRESSURE RELIEF VALVE	R	9
058	PRIMARY CONTAINMENT INSTRUMENT GAS	PSV-59-152B	PRESSURE RELIEF VALVE	R	10
058	PRIMARY CONTAINMENT INSTRUMENT GAS	PSV-59-153A	PRESSURE RELIEF VALVE	R	11
058	PRIMARY CONTAINMENT INSTRUMENT GAS	PSV-59-153B	PRESSURE RELIEF VALVE	R	12
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-140A	EXPLOSION OP GATE VALVE	R	13
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-140B	EXPLOSION OP GATE VALVE	R	14
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-140C	EXPLOSION OP GATE VALVE	R	15
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-140D	EXPLOSION OP GATE VALVE	R	16
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-140E	EXPLOSION OP GATE VALVE	R	17
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-141A	ELECTRICALLY OP BALL VLV	R	18
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-141B	ELECTRICALLY OP BALL VLV	R	19
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-141C	ELECTRICALLY OP BALL VLV	R	20
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-141D	ELECTRICALLY OP BALL VLV	R	21
058	PRIMARY CONTAINMENT INSTRUMENT GAS	XV-59-141E	ELECTRICALLY OP BALL VLV	R	22
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1001	CHECK VALVE	C	23
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1005A	CHECK VALVE	C	24
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1005B	CHECK VALVE	C	25
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1023E	CHECK VALVE	C	26
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1023H	CHECK VALVE	C	27
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1023K	CHECK VALVE	C	28
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1023M	CHECK VALVE	C	29
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1023S	CHECK VALVE	C	30
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1024E	CHECK VALVE	C	31
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1024H	CHECK VALVE	C	32
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1024K	CHECK VALVE	C	33
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1024M	CHECK VALVE	C	34
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1024S	CHECK VALVE	C	35
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1056	CHECK VALVE	C	36
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1112	CHECK VALVE	C	37
058	PRIMARY CONTAINMENT INSTRUMENT GAS	1128	CHECK VALVE	C	38

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
065	REACTOR ENCLOSURE HVAC	FD--76-C192A	ELEC-HYDR OP DAMPER	R	1
065	REACTOR ENCLOSURE HVAC	FD--76-C192B	ELEC-HYDR OP DAMPER	R	2
065	REACTOR ENCLOSURE HVAC	HD-76-183A	ELEC-HYDR OP DAMPER	R	3
065	REACTOR ENCLOSURE HVAC	HD-76-183B	ELEC-HYDR OP DAMPER	R	4
065	REACTOR ENCLOSURE HVAC	HD-76-193A	ELEC-HYDR OP DAMPER	R	5
065	REACTOR ENCLOSURE HVAC	HD-76-193B	ELEC-HYDR OP DAMPER	R	6
065	REACTOR ENCLOSURE HVAC	HV-76-109	E-H OP BTTRFLY VALVE	R	7
065	REACTOR ENCLOSURE HVAC	HV-76-110	E-H OP BTTRFLY VALVE	R	8
065	REACTOR ENCLOSURE HVAC	HV-76-119	E-H OP BTTRFLY VALVE	R	9
065	REACTOR ENCLOSURE HVAC	HV-76-120	E-H OP BTTRFLY VALVE	R	10
065	REACTOR ENCLOSURE HVAC	HV-76-184A	E-H OP BTTRFLY VALVE	R	11
065	REACTOR ENCLOSURE HVAC	HV-76-184B	E-H OP BTTRFLY VALVE	R	12
065	REACTOR ENCLOSURE HVAC	HV-76-191A	E-H OP BTTRFLY VALVE	R	13
065	REACTOR ENCLOSURE HVAC	HV-76-191B	E-H OP BTTRFLY VALVE	R	14
065	REACTOR ENCLOSURE HVAC	1AV213	FAN	R	15
065	REACTOR ENCLOSURE HVAC	1BV213	FAN	R	16

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
073	EQUIPMENT AND FLOOR DRAINS	HV-61-102	MOTOR OP GLOBE VALVE	R	1
073	EQUIPMENT AND FLOOR DRAINS	HV-61-110	AIR OP GATE VALVE	R	2
073	EQUIPMENT AND FLOOR DRAINS	HV-61-111	AIR OP GATE VALVE	R	3
073	EQUIPMENT AND FLOOR DRAINS	HV-61-112	MOTOR OP GLOBE VALVE	R	4
073	EQUIPMENT AND FLOOR DRAINS	HV-61-130	AIR OP GATE VALVE	R	5
073	EQUIPMENT AND FLOOR DRAINS	HV-61-131	AIR OP GATE VALVE	R	6
073	EQUIPMENT AND FLOOR DRAINS	HV-61-132	MOTOR OP GLOBE VALVE	R	7

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
075	DRYWELL CHILLED WATER	HV-87-122	MOTOR OP GATE VALVE	R	1
075	DRYWELL CHILLED WATER	HV-87-123	MOTOR OP GATE VALVE	R	2
075	DRYWELL CHILLED WATER	HV-87-128	MOTOR OP GATE VALVE	R	3
075	DRYWELL CHILLED WATER	HV-87-129	MOTOR OP GATE VALVE	R	4
075	DRYWELL CHILLED WATER	XV-87-156A	FLOW LIMITING VALVE	R	5
075	DRYWELL CHILLED WATER	XV-87-156B	FLOW LIMITING VALVE	R	6
075	DRYWELL CHILLED WATER	XV-87-157A	FLOW LIMITING VALVE	R	7
075	DRYWELL CHILLED WATER	XV-87-157B	FLOW LIMITING VALVE	R	8

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-201-21A	STEAM FLOODING DAMPER	R	1
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-201-21B	STEAM FLOODING DAMPER	R	2
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-201-22A	STEAM FLOODING DAMPER	R	3
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-201-22B	STEAM FLOODING DAMPER	R	4
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-201-23A	STEAM FLOODING DAMPER	R	5
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-201-23B	STEAM FLOODING DAMPER	R	6
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-201-68A	STEAM FLOODING DAMPER	R	7
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-201-68B	STEAM FLOODING DAMPER	R	8
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-104	STEAM FLOODING DAMPER	R	9
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-104	STEAM FLOODING DAMPER	R	10
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-118	STEAM FLOODING DAMPER	R	11
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-118	STEAM FLOODING DAMPER	R	12
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-33A	STEAM FLOODING DAMPER	R	13
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-33B	STEAM FLOODING DAMPER	R	14
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-40A	STEAM FLOODING DAMPER	R	15
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-40B	STEAM FLOODING DAMPER	R	16
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-41A	STEAM FLOODING DAMPER	R	17
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-41B	STEAM FLOODING DAMPER	R	18
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-67A	STEAM FLOODING DAMPER	R	19
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-202-67B	STEAM FLOODING DAMPER	R	20
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-10A	STEAM FLOODING DAMPER	R	21
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-10B	STEAM FLOODING DAMPER	R	22
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-14A	STEAM FLOODING DAMPER	R	23
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-14B	STEAM FLOODING DAMPER	R	24
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-16A	STEAM FLOODING DAMPER	R	25
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-16B	STEAM FLOODING DAMPER	R	26
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-17A	STEAM FLOODING DAMPER	R	27
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-17B	STEAM FLOODING DAMPER	R	28
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-1A	STEAM FLOODING DAMPER	R	29
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-1B	STEAM FLOODING DAMPER	R	30
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-20A	STEAM FLOODING DAMPER	R	31
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-20B	STEAM FLOODING DAMPER	R	32
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-22A	STEAM FLOODING DAMPER	R	33
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-22B	STEAM FLOODING DAMPER	R	34
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-23A	STEAM FLOODING DAMPER	R	35
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-23B	STEAM FLOODING DAMPER	R	36
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-24A	STEAM FLOODING DAMPER	R	37
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-24B	STEAM FLOODING DAMPER	R	38
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-25A	STEAM FLOODING DAMPER	R	39
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-25B	STEAM FLOODING DAMPER	R	40
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-26A	STEAM FLOODING DAMPER	R	41
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-26B	STEAM FLOODING DAMPER	R	42
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-27A	STEAM FLOODING DAMPER	R	43
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-27B	STEAM FLOODING DAMPER	R	44
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-28A	STEAM FLOODING DAMPER	R	45
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-28B	STEAM FLOODING DAMPER	R	46
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-29A	STEAM FLOODING DAMPER	R	47
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-29B	STEAM FLOODING DAMPER	R	48
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-30A	STEAM FLOODING DAMPER	R	49
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-30B	STEAM FLOODING DAMPER	R	50
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-31A	STEAM FLOODING DAMPER	R	51
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-31B	STEAM FLOODING DAMPER	R	52
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-37A	STEAM FLOODING DAMPER	R	53
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-37B	STEAM FLOODING DAMPER	R	54

079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-38A	STEAM FLOODING DAMPER	R	55
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-38B	STEAM FLOODING DAMPER	R	56
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-39A	STEAM FLOODING DAMPER	R	57
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-39B	STEAM FLOODING DAMPER	R	58
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-3A	STEAM FLOODING DAMPER	R	59
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-3B	STEAM FLOODING DAMPER	R	60
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-42A	STEAM FLOODING DAMPER	R	61
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-42B	STEAM FLOODING DAMPER	R	62
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-43A	STEAM FLOODING DAMPER	R	63
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-43B	STEAM FLOODING DAMPER	R	64
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-44A	STEAM FLOODING DAMPER	R	65
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-44B	STEAM FLOODING DAMPER	R	66
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-4A	STEAM FLOODING DAMPER	R	67
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-4B	STEAM FLOODING DAMPER	R	68
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-9A	STEAM FLOODING DAMPER	R	69
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	BPD-76-203-9B	STEAM FLOODING DAMPER	R	70
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1AV208	FAN	R	71
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1AV209	FAN	R	72
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1AV210	FAN	R	73
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1AV211	FAN	R	74
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1BV208	FAN	R	75
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1BV209	FAN	R	76
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1BV210	FAN	R	77
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1BV211	FAN	R	78
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1CV210	FAN	R	79
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1CV211	FAN	R	80
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1DV210	FAN	R	81
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1DV211	FAN	R	82
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1EV210	FAN	R	83
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1EV211	FAN	R	84
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1FV210	FAN	R	85
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1FV211	FAN	R	86
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1GV210	FAN	R	87
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1GV211	FAN	R	88
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1HV210	FAN	R	89
079	RHR, HPCI, RCIC, AND CS ROOMS HVAC	1HV211	FAN	R	90

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
080	REACTOR ENCLOSURE ISOLATION	HV-76-107	AIR OP BUTTERFLY VALVE	R	1
080	REACTOR ENCLOSURE ISOLATION	HV-76-108	AIR OP BUTTERFLY VALVE	R	2
080	REACTOR ENCLOSURE ISOLATION	HV-76-117	AIR OP BUTTERFLY VALVE	R	3
080	REACTOR ENCLOSURE ISOLATION	HV-76-118	AIR OP BUTTERFLY VALVE	R	4
080	REACTOR ENCLOSURE ISOLATION	HV-76-151	AIR OP BUTTERFLY VALVE	R	5
080	REACTOR ENCLOSURE ISOLATION	HV-76-152	AIR OP BUTTERFLY VALVE	R	6
080	REACTOR ENCLOSURE ISOLATION	HV-76-159	AIR OP BUTTERFLY VALVE	R	7
080	REACTOR ENCLOSURE ISOLATION	HV-76-160	AIR OP BUTTERFLY VALVE	R	8
080	REACTOR ENCLOSURE ISOLATION	HV-76-167	AIR OP BUTTERFLY VALVE	R	9
080	REACTOR ENCLOSURE ISOLATION	HV-76-168	AIR OP BUTTERFLY VALVE	R	10
080	REACTOR ENCLOSURE ISOLATION	HV-76-169	AIR OP BUTTERFLY VALVE	R	11
080	REACTOR ENCLOSURE ISOLATION	HV-76-170	AIR OP BUTTERFLY VALVE	R	12
080	REACTOR ENCLOSURE ISOLATION	HV-76-196	AIR OP BUTTERFLY VALVE	R	13
080	REACTOR ENCLOSURE ISOLATION	HV-76-197	AIR OP BUTTERFLY VALVE	R	14

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
081	SUPPRESSION POOL CLEANUP	HV-52-127	MOTOR OP GATE VALVE	R	1
081	SUPPRESSION POOL CLEANUP	HV-52-128	MOTOR OP GATE VALVE	R	2

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
090	STANDBY GAS TREATMENT	HD-76-040A	ELEC-HYDR DAMPER	CS	1
090	STANDBY GAS TREATMENT	HD-76-040B	ELEC-HYDR DAMPER	CS	2
090	STANDBY GAS TREATMENT	HD-76-041A	ELEC-HYDR DAMPER	CS	3
090	STANDBY GAS TREATMENT	HD-76-041B	ELEC-HYDR DAMPER	CS	4
090	STANDBY GAS TREATMENT	HV-76-011A	HYDR ACT BUTTERFLY VALVE	CS	5
090	STANDBY GAS TREATMENT	HV-76-011B	HYDR ACT BUTTERFLY VALVE	CS	6
090	STANDBY GAS TREATMENT	HV-76-012A	ELEC-HYDR ACT BTFLY VAL	CS	7
090	STANDBY GAS TREATMENT	HV-76-012B	ELEC-HYDR ACT BTFLY VAL	CS	8
090	STANDBY GAS TREATMENT	HV-76-013A	HYDR ACT BTFLY VALVE	CS	9
090	STANDBY GAS TREATMENT	HV-76-013B	HYDR ACT BTFLY VALVE	CS	10
090	STANDBY GAS TREATMENT	HV-76-030	AIR OP BUTTERFLY VALVE	CS	11
090	STANDBY GAS TREATMENT	HV-76-031	AIR OP BUTTERFLY VALVE	CS	12
090	STANDBY GAS TREATMENT	PDC-76-039A	ELEC-HYDR CNTRL DAMPER	CS	13
090	STANDBY GAS TREATMENT	PDC-76-039B	ELEC-HYDR CNTRL DAMPER	CS	14
090	STANDBY GAS TREATMENT	0AV109	EXHAUST FAN	CS	15
090	STANDBY GAS TREATMENT	0BV109	EXHAUST FAN	CS	16

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
098	DRYWELL HVAC (COOLING)	1AV212	FAN	C	1
098	DRYWELL HVAC (COOLING)	1BV212	FAN	C	2
098	DRYWELL HVAC (COOLING)	1CV212	FAN	C	3
098	DRYWELL HVAC (COOLING)	1DV212	FAN	C	4
098	DRYWELL HVAC (COOLING)	1EV212	FAN	C	5
098	DRYWELL HVAC (COOLING)	1FV212	FAN	C	6
098	DRYWELL HVAC (COOLING)	1GV212	FAN	C	7
098	DRYWELL HVAC (COOLING)	1HV212	FAN	C	8

CCP	SYSTEM	PLANT-ID	DESCRIPTION	LOC	EQRR #
099	SAFEGUARD PIPING FILL	1032	CHECK VALVE	R	1
099	SAFEGUARD PIPING FILL	1033	CHECK VALVE	R	2
099	SAFEGUARD PIPING FILL	1036A	CHECK VALVE	R	3
099	SAFEGUARD PIPING FILL	1036B	CHECK VALVE	R	4
099	SAFEGUARD PIPING FILL	1048	CHECK VALVE	R	5
099	SAFEGUARD PIPING FILL	1048A	CHECK VALVE	R	6
099	SAFEGUARD PIPING FILL	1048B	CHECK VALVE	R	7
099	SAFEGUARD PIPING FILL	1049	CHECK VALVE	R	8
099	SAFEGUARD PIPING FILL	1115A	CHECK VALVE	R	9
099	SAFEGUARD PIPING FILL	1115B	CHECK VALVE	R	10
099	SAFEGUARD PIPING FILL	1115C	CHECK VALVE	R	11
099	SAFEGUARD PIPING FILL	1115D	CHECK VALVE	R	12
099	SAFEGUARD PIPING FILL	1116A	CHECK VALVE	R	13
099	SAFEGUARD PIPING FILL	1116B	CHECK VALVE	R	14
099	SAFEGUARD PIPING FILL	1116C	CHECK VALVE	R	15
099	SAFEGUARD PIPING FILL	1116D	CHECK VALVE	R	16

APPENDIX C

EQUIPMENT QUALIFICATION REVIEW RECORD (EQRR) FORMS

Plant I.D. _____ Description _____ Equip. Manuf. _____

System/CCP _____ Area/Elev./Rm. # _____ M.R./M.R. Item # _____

Ref. Dwg. # _____ Foreign Print # _____ P.O. # _____

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)						
Pressure (PSIG)						
Radiation (Rads)						
Humidity (%)						
Submergence						
Required Operating Time						

Overall EQ Status _____ Comments _____

Revision # _____ Date _____

Prepared By _____ Date _____

Reviewed By _____ Date _____

PLANT I. D. _____ DESCRIPTION _____

SYSTEM/CCP _____ REQUIRED CONDITIONS _____

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
			TEMPERATURE (°F)			
			PRESSURE (PSIG)			
			RADIATION (Rads)			
			HUMIDITY (%)			
			AGING ANALYSIS			

REVISION # _____ DATE _____

PREPARED BY _____ DATE _____

REVIEWED BY _____ DATE _____

FOREIGN PRINT # _____

RECOMMENDED REPLACEMENT SCHEDULE _____

NON-METALLIC PART EQ STATUS _____

COMMENTS _____

DESCRIPTION OF EQRR ENTRIES

Form #1

Plant I.D.:	Provides Plant I.D. from the Component Classification Program.
Description:	Provides description of component being qualified from the Component Classification Program.
Equip. Manuf.:	Component equipment manufacturer name.
System/CCP:	Provides system name and assigned system number from the Component Classification Program.
Area/Elev./Rm. #:	Provides component area location number, component floor elevation and room number.
M.R./M.R. Item #:	Provides the material requisition and material requisition item number.
Ref. Dwg. #:	Provides applicable reference drawing numbers and revisions, such as the Quality Assurance Drawing and Piping and Instrumentation Diagrams (P&ID) with revision numbers.
Foreign Print #:	Bechtel assigned number to the manufacturer drawing (outline drawing) which provides component piece part information (same drawing number as shown on Form #2). In some cases this may be a bill of materials reference and not a drawing reference.
P.O. #:	Provides purchase order number, usually same as material requisition number.
Process Condition (#1): (Temperature (°F), Pressure (PSIG), Radiation (Rads), and Humidity (%))	Provides the process (fluid line) conditions for temperature, pressure, radiation, and humidity.

Form #1

Normal Ambient Environ. Condition (#2): (Temperature (°F), Pressure (PSIG), Radiation (Rads), Humidity (%), and Required Operating Time)	Provides the normal ambient environmental conditions for temperature, pressure, radiation, and humidity. Radiation (gamma) value shown is the 40 year normal Total Integrated Dose (TID). Temperature, pressure, and humidity values are the maximum values shown for normal operation. Required operating time is the required operating time under normal conditions for the equipment, typically 40 years.
Accident Ambient Environ. Condition (#3): (Temperature (°F), Pressure (PSIG), Radiation (Rads), Humditiy (%), Submergence, and Required Operating Time)	Provides the accident ambient environmental conditions for temperature, pressure, radiation, and humidity. Both gamma and beta radiation values are listed and the values shown are Total Integrated Dose (TID) from accident or HELB condition start to end of the component's required operating time. Temperature, pressure, radiation, and humidity values specified are those for accident conditions or HELB conditions. If the values are HELB values it is noted in the comment section. If submergence needs to be addressed for the component under consideration it is so noted and further explained in comments if required. Required operating time is the time the component under consideration is required to operate to perform its safety function (minutes, hours, days).
Reference Code Number: (for all conditions)	Provides reference by code number for which information shown was obtained. Code numbers and corresponding references are shown in Section 9.0.
Overall EQ Status:	Provides overall equipment EQ status to conditions shown for given required operating times.
Comments:	Provides any commments or required clarification.
Revision #:	Indicates current revision of the EQRR (Form #1).

DESCRIPTION OF EQRR ENTRIES (Continued)

Form #1

Date:	Indicates date of current revision.
Prepared By:	Indicates individual preparing the EQRR.
Date:	Indicates the date the EQRR was prepared.
Reviewed By:	Indicates individual reviewing the EQRR.
Date:	Indicates the date the EQRR was reviewed.
EQRR # ____:	Indicates the assigned EQRR number, done on a system basis. Th , number is shown on the equipment list in Appendix B.
Sheet ___ of ___:	Indicates the sheet number for the component and the total number of sheets for the component.

Form #2

PLANT I.D.:	Provides Plant I.D. from the Component Classification Program.
DESCRIPTION:	Provides description of component being qualified, from the Component Classification Program.
SYSTEM/CCP:	Provides system name and assigned system number from the Component Classification Program.
REQUIRED CONDITIONS:	Required process, and normal and accident ambient conditions from Form #1 which apply to the non-metallic part shown on Form #2.
NON-METALLIC PART NAME:	Non-metallic part name as shown on manufacturer drawing or bill of materials.
PART #:	Number assigned to non-metallic part on drawing or bill of materials, if available.

DESCRIPTION OF EQRR ENTRIES (Continued)

Form #2

PART MATERIAL:	Non-metallic part material as specified on manufacturer drawing or bill of materials.
MATERIAL CAPABILITY: (Temperature (°F), Pressure (PSIG), Radiation (Rads), Humidity (%), and Aging Analysis)	Maximum material capability values for temperature, pressure, radiation, humidity, and aging (time) before unacceptable material degradation occurs.
REFERENCE CODE NUMBER: (Temperature (°F), Pressure (PSIG), Radiation (Rads), Humditiy (%), and Aging Analysis)	Provides reference code number for which information shown was obtained. Code numbers and corresponding references are shown in Section 9.0.
RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:	If the non-metallic part is not required for the equipment to perform its active safety-related function no material capability analysis need be performed. Justification for this condition is provided here.
REVISION #:	Indicates current revision of EQRR (Form #2)
DATE:	Indicates date of current revision.
RECOMMENDED REPLACEMENT SCHEDULE:	If aging analysis shows part material capability of less than 40 years a replacement schedule is recommended to ensure unacceptable degradation during part's use will not occur.
PREPARED BY:	Indicates individual preparing the EQRR.
DATE:	Indicates the date the EQRR was prepared.
NON-METALLIC PART EQ STATUS:	Provides EQ status of non-metallic part based on material capabilities and recommended replacement schedule.
REVIEWED BY:	Indicates individual reviewing the EQRR.
DATE:	Indicates the date the EQRR was reviewed.
COMMENTS:	Provides any comments or required clarification.

DESCRIPTION OF EQRR ENTRIES (Continued)

Form #2

FOREIGN PRINT #:

Bechtel assigned number to the manufacturer drawing (outline drawing) which provides component piece part information (same drawing number as shown on Form #1). In some cases this may be a bill of materials reference and not a drawing reference.

EQRR #_____:

Indicates the assigned EQRR number, done on a system basis. This number is shown on the equipment list in Appendix B.

SHEET ___OF ___:

Indicates the sheet number for the component and the total number of sheets for the component.

APPENDIX D

EQUIPMENT SPECIFIC EQRR's

Plant I.D.	HV-55-1F001	Description	Motor Operated Valve	Equip. Manuf.	Velan
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-104B/3.25
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-104B-38-9	P.O. #	P-104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	115	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.76×10^6* 3.6×10^9**	71 & 80	8.46×10^5 (Gamma)	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	45	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

**Accident Beta

Revision # 1 Date 12/5/83

Prepared By B. R. Patel Date 12/5/83

Reviewed By A Kumar Date 12/6/83

PLANT I. D. HV-55-1F001 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	13	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-P-104B-38-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F002	Description	Motor Operated Valve	Equip. Manuf.	Anchor/Darling
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/238'/25	M.R./M.R. Item #	P-104C/21.1
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-104C-34-6	P.O. #	P-104C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	330	1
Pressure (PSIG)	1250	3	8.75	1	44	1
Radiation (Rads)	1.54×10^{7}* 3.80×10^{9}**	71 & 80	8.8×10^{4} (Gamma) 5.5×10^{6} (Neutral)	1	1.37×10^{7} (Gamma) 1.97×10^{8} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	45	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

Revision #: 1 Date: 12/5/83

Prepared By: B. R. Patel Date: 12/5/83

Reviewed By: P A Kumar Date: 12/6/83

*Normal and Accident Gamma

**Accident Beta

PLANT I. D. HV-55-1F002 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY RAkman DATE 11/27/83

FOREIGN PRINT # 8031-P-104C-34-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F002 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-104C-34-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-55-1F003 Description Motor Operated Valve Equip. Manuf. Anchor/Darling

System/CCP High Pressure Coolant Injection/021 Area/Elev./Rm. # 15/217'/309 M.R./M.R. Item # P-104C/21.3

Ref. Dwg. # P&ID M-55 Rev. 17 Foreign Print # 8031-P-104C-34-6 P.O. # P-104C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.76×10^{6}* 3.6×10^{9}**	71 & 80	8.46×10^{5}	1	4.71×10^{5} (Gamma) 1.77×10^{4} (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	45	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments *Normal and Accident Gamma

Revision # 1 Date 12/5/83 **Accident Beta

Prepared By B. R. Patel Date 12/5/83

Reviewed By P.A. Kumar Date 12/6/83

PLANT I. D. HV-55-1F003 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-104C-34-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F003

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY RAKumar DATE 11/27/83

FOREIGN PRINT # 8031-P-104C-34-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F004	Description	Motor Operated Valve	Equip. Manuf.	Anchor/Darling
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-102/5.5
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-102B-33-5	P.O. #	P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	125	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/11/83

Prepared By: B. R. Patel Date: 8/11/83

Reviewed By: P.A. Kumar Date: 11/27/83

Comments: Condensate storage tank supply line, no process radioactivity.

PLANT I. D. HV-55-1F004

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A.A. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-102B-33-5

RECOMMENDED REPLACEMENT SCHEDULE (Based on EQ Evaluation) None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-55-1F004

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/J21

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RAKemp DATE 11/27/83

FOREIGN PRINT # 8031-102B-33-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81).

PLANT I. D. HV-55-1F004

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RAKumar DATE 11/27/83

FOREIGN PRINT # 8031-P-102B-33-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81).

Plant I.D. HV-55-1F006	Description Motor Operated Valve	Equip. Manuf. Velan
System/CCP High Pressure Coolant Injection/021	Area/Elev./Rm. # 12/283'/500	M.R./M.R. Item # P-104B/3.21
Ref. Dwg. # P&ID M-55 Rev. 17	Foreign Print # 8031-P-104B-38-9	P.O. # P-104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	104	1	120	1
Pressure (PSIG)	1423	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.26×10^6 (Accident, Gamma)	70	8.78×10^2	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	45	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By [signature] Date 11/27/83

PLANT I. D. HV-55-1F006 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	13	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-104B-38-9

RECOMMENDED REPLACEMENT SCHEDULE N/A (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F007	Description	Motor Operated Valve	Equip. Manuf.	Velan
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	11/201'/200	M.R./M.R. Item #	P-104B/3.23
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-104B-60-5	P.O. #	P-104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	104	1	120	1
Pressure (PSIG)	1423	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.26×10^6 (Accident, Gamma)	70	8.78×10^2	1	3.74×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	45	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision #: 0 Date: 8/11/83

Prepared By: B. R. Patel Date: 8/11/83

Reviewed By: [signature] Date: 11/27/83

PLANT I. D. HV-55-1F007

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	13	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-107B-60-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F008	Description	Motor Operated Valve	Equip. Manuf.	Anchor/Darling
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	11/201'/200	M.R./M.R. Item #	P-104C/5.9
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-104C-2-4	P.O. #	P-104C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	104	1	120	1
Pressure (PSIG)	1423	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	2.98×10^5 Accident, Gamma	70	8.78×10^2	1	8.78×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	45	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision #: 0 Date: 8/11/83

Prepared By: B. R. Patel Date: 8/11/83

Reviewed By: A Kumar Date: 11/27/83

PLANT I. D. HV-55-1F008 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.K. DATE 10/27/83

FOREIGN PRINT # 8031-P-104C-2-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F008 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-104C-2-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F011	Description	Motor Operated Valve	Equip. Manuf.	Velan
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	11/201'/200	M.R./M.P. Item #	P-104B/3.27
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-104B-40-6	P.O. #	P-104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	104	1	120	1
Pressure (PSIG)	1423	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	2.98×10^5 (Accident, Gamma)	70	8.78×10^2	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	45	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision #: 0 Date: 8/11/83

Prepared By: B. R. Patel Date: 8/11/83

Reviewed By: A Kumar Date: 11/27/83

PLANT I. D. HV-55-1F011 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	13	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-P-104B-40-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F011 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	17	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.N. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-104B-40-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-55-1F012	Description Motor Operated Valve	Equip. Manuf. Anchor/Darling
System/CCP High Pressure Coolant Injection/021	Area/Elev./Rm. # 16/177'/288	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-55 Rev. 17	Foreign Print # 8031-M-1-E41-F012-H-1.2	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	1423	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 Accident, Gamma	70	8.46×10^5	1	7.79×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Comments

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By A Kumar Date 11/27/83

PLANT I. D. HV-55-1F012

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing		Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.K.Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-F012-H-1.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-56-1F025	Description	Air Operated Valve	Equip. Manuf.	Rockwell
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-114A/7.5
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-114A-108-1	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	200	3	115	1	115	1
Pressure (PSIG)	125	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.76×10^6* 3.6×10^9**	71 & 80	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

**Accident Beta

Revision # 1 Date 12/5/83

Prepared By B. R. Patel Date 12/5/83

Reviewed By [signature] Date 12/6/83

PLANT I. D. HV-55-1F025 DESCRIPTION Air Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings		Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 1 DATE 12/5/83

PREPARED BY V. Pichai DATE 12/5/83

REVIEWED BY P.Kumar DATE

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-56-1F025

DESCRIPTION Air Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lyon DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-56-1F026	Description	Air Operated Valve	Equip. Manuf.	Rockwell
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-114A/7.5
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-114A-108-1	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	200	3	115	1	115	1
Pressure (PSIG)	125	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.76×10^6* 3.6×10^9**	71 & 80	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma.
**Accident Beta

Revision # 1 Date 12/5/83

Prepared By B. R. Patel Date 12/5/83

Reviewed By PAKumar Date 12/6/83

PLANT I. D. HV-55-1F026 DESCRIPTION Air Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 1 DATE 12/5/83

PREPARED BY V. Pichai DATE 12/5/83

REVIEWED BY PAtkinson DATE 12/6/83

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-56-1F026

DESCRIPTION Air Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lem DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-55-1F028	Description	Air Operated Valve	Equip. Manuf.	Rockwell
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-114A/7.3
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-114A-108-1	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	115	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.76×10^6* 3.6×10^9**	71 & 80	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

**Accident Beta

Revision # 1 Date 12/5/83

Prepared By B. R. Patel Date 12/5/83

Reviewed By A Kumar Date 12/6/83

PLANT I. D. HV-55-1F028 DESCRIPTION Air Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 1 DATE 12/5/83

PREPARED BY V. Pichai DATE 12/5/83

REVIEWED BY P.Kumar DATE 12/6/83

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F028

DESCRIPTION Air Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-55-1F029	Description	Air Operated Valve	Equip. Manuf.	Rockwell
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-114A/7.3
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-114A-108-1	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	115	1
Pressure (PSIG)	1115	3	1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.76×10^6* 3.6×10^9**	71 & 80	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 1 Date: 12/5/83

Prepared By: B. R. Patel Date: 12/5/83

Reviewed By: A Kumar Date: 12/6/83

Comments: *Normal and Accident Gamma

**Accident Beta

PLANT I. D. HV-55-1F029 DESCRIPTION Air Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 1 DATE 12/5/83

PREPARED BY V. Pichai DATE 12/5/83

REVIEWED BY S A Kumar DATE 12/6/83

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F029

DESCRIPTION Air Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lepo DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-55-1F041	Description	Motor Operated Valve	Equip. Manuf.	Anchor/Darling
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-119/4.7
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-102B-33-5	P.O. #	P-119

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	297	1
Pressure (PSIG)	125	3	-1/4" W.G.	1	2.7	1
Radiation (Rads)	1.40×10^6 (Accident, Gamma)	70	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	50	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision #: 0 Date: 8/11/83

Prepared By: B. R. Patel Date: 8/11/83

Reviewed By: A Kumar Date: 11/27/83

PLANT I. D. HV-55-1F041

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-102B-33-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-55-1F041

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/27/83

FOREIGN PRINT # 8031-102B-33-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81).

PLANT I. D. HV-55-1F041

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-P-102B-33-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81).

Plant I.D.	HV-55-1F042	Description	Motor Operated Valve	Equip. Manuf.	Anchor/Darling
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-103/3.1
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-103-8-9	P.O. #	P-103

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	297	1
Pressure (PSIG)	125	3	-1/4" W.G.	1	2.7	1
Radiation (Rads)	1.40×10^6 (Accident, Gamma)	70	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	44	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 0 Date 8/11/83

Prepared By: B. R. Patel Date 8/11/83

Reviewed By: A Kumar Date 11/27/83

PLANT I. D. HV-55-1F042

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	Asbestos	TEMPERATUR (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-103-8-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-55-1F042 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY B A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-103-8-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F042 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY AKumar DATE 11/27/83

FOREIGN PRINT # 8031-P-103-8-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-56-1F059	Description	Motor Operated Valve	Equip. Manuf.	Rockwell
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-114A/9.11
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-114A-44-6	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	370	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.21×10^5 (Accident, Gamma)	N/A	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By A Kumar Date 11/27/83

PLANT I. D. HV-56-1F059 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F071	Description	Motor Operated Valve	Equip. Manuf.	Velan
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	11/201'/200	M.R./M.R. Item #	P-104/3.17
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-104B-1-13	P.O. #	P-104

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	104	1	120	1
Pressure (PSIG)	1423	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.45×10^5 (Accident Gamma)	70	8.78×10^2	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	45	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By PAKumar Date 11/27/83

PLANT I. D. HV-55-1F071 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	17	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-104B-1-13

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F072	Description	Motor Operated Valve	Equip. Manuf.	Anchor/Darling
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/201'/288	M.R./M.R. Item #	P-103/3.9
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-103A-11-9	P.O. #	P-103

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	366	3	115	1	115	1
Pressure (PSIG)	185	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.76×10^{6}* 3.6×10^{9}**	71 & 80	8.46×10^{5}	1	7.79×10^{5} (Gamma) 1.77×10^{4} (Beta)	1
Humidity (%)	N/A	N/A	90	1	9	1
Submergence					No	13
Required Operating Time			40 years	44	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

**Accident Beta

Revision # 1 Date 12/5/83

Prepared By B. R. Patel Date 12/5/83

Reviewed By P.A. Kumar Date 12/6/83

PLANT I. D. HV-55-1F072

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-103A-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-55-1F072 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.K.Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-103A-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F072 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-103A-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F093	Description	Motor Operated Valve	Equip. Manuf.	Anchor/Darling
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/201'/200	M.R./M.R. Item #	P-102/5.21
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-102A-129-3	P.O. #	P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	366	3	104	1	120	1
Pressure (PSIG)	185	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.75×10^{6}* 1.1×10^{9}**	71 & 80	8.78×10^{2}	1	8.76×10^{4} (Gamma) 5.91×10^{2} (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 1 Date: 12/5/83

Prepared By: B. R. Patel Date: 12/5/83

Reviewed By: PAKumar Date: 12/6/83

Comments: *Normal and Accident Gamma

**Accident Beta

PLANT I. D. HV-55-1F093

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-102A-129-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-55-1F093 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.A. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-102A-129-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F093 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-102A-129-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F095	Description	Motor Operated Valve	Equip. Manuf.	Anchor/Darling
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/201'/288	M.R./M.R. Item #	P-102/5.21
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-102A-129-3	P.O. #	P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	366	3	115	1	298	1
Pressure (PSIG)	185	3	-1/4" W.G.	1	6.1	1
Radiation (Rads)	1.45×10^5 (Accident, Gamma)	70	8.46×10^5	1	7.71×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision #: 0 Date: 8/11/83

Prepared By: B. R. Patel Date: 8/11/83

Reviewed By: A Kumar Date: 11/27/83

PLANT I. D. HV-55-1F095

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-102A-129-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-55-1F095 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-102A-129-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-55-1F095 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-102A-129-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F100	Description	Motor Operated Valve	Equip. Manuf.	Rockwell
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	P-114A/9.23
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-114A-69-7	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.76×10^6* 3.6×10^9**	71 & 80	8.46×10^5	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

**Accident Beta

Revision # 1 Date 12/5/83

Prepared By: D. R. Patel Date 12/5/83

Reviewed By: GAKumar Date 12/6/83

PLANT I. D. HV-55-1F100 DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-1)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-55-1F105	Description	Motor Operated Valve	Equip. Manuf.	Velan
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	24/283'/518	M.R./M.R. Item #	P104B/4.26
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-P-104B-62-8	P.O. #	P104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	120	1	120	1
Pressure (PSIG)	1777	3	1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.26×10^6 (Accident, Gamma)	70	1.35×10^6 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 1 Date 12/5/83

Prepared By B. R. Patel Date 12/5/83

Reviewed By A Kumar Date 12/6/83

PLANT I. D. HV-56-1F105

DESCRIPTION Motor Operated Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	17	Asbestos (John Crane 187-X)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 12/5/83

PREPARED BY D. Sexton DATE 12/5/83

REVIEWED BY A Kumar DATE 12/8/83

FOREIGN PRINT # 8031-P-104B-62-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	XV-55-1F024A	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/217'/307	M.R./M.R. Item #	M-231/31.1
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	8.46×10^5 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	40	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By PAKumar Date 11/27/83

PLANT I. D. XV-55-1F024A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pachai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-55-1F024A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.A. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-55-1F024A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY JAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-55-1F024A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	63	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-55-1E024B	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/217'/307	M.R./M.R. Item #	M-231/31.1
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	8.46×10^5 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	40	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By J.A. Kumar Date 11/27/83

PLANT I. D. XV-55-1F024B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pachai DATE 10/26/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-55-1F024B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY AKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-55-1F024B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-55-1F024B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	63	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.A. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-55-1F024C	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/217'/307	M.R./M.R. Item #	M-231/31.1
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	8.46×10^5 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	40	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By P A Kumar Date 11/27/83

PLANT I. D. XV-55-1F024C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pachai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-55-1F024C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-55-1F024C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY PAKewar DATE 11/27/83

FOREIGN PR[illegible] # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

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PLANT I. D. XV-55-1F024C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	63	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-55-1F024D	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/217'/307	M.R./M.R. Item #	M-231/31.1
Ref. Dwg. #	P&ID M-55 Rev. 17	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.03×10^7 (Norma Accident Gamma	& 70 & 71	8.46×10^5 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	40	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By PAkumar Date 11/27/83

PLANT I. D. XV-55-1F024D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-55-1F024D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.A.Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-55-1F024D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY AKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-55-1F024D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	63	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	10P204	Description	HPCI Pump	Equip. Manuf.	Borg Warner
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-103/3.1
Ref. Dwg. #	P&ID M-56 Rev. 13	Foreign Print #	8031-M-1-E41-C001-K-1.1	P.O. #	P-103

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	1423	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.40×10^6 Accident, Gamma	70	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	8/11/83		
Prepared By	B. R. Patel	Date	8/11/83		
Reviewed By	P A Kumar	Date	11/27/83		

PLANT I. D. 10P204 DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cartridge Gasket	66	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/27-83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY R.A. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204

DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Flange Gasket	48	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments		

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204 DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Flange Gasket	65	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/27-83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204

DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	17	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10F204

DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	19	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/27-83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204 DESCRIPTION HPCI Booster Pump

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket - Cover	14	Wax paper	TEMPERATURE (°F)	--	--	This part belongs to the pump bearing cover and is not vital for the pump performance.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY JA Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on Eq Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

See Rationale

COMMENTS

PLANT I. D. 10P204

DESCRIPTION HPCI Booster Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket - Cover	16	Wax paper	TEMPERATURE (°F)	--	--	This part belongs to the pump bearing cover and is not vital for the pump performance.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

See Rationale

COMMENTS

PLANT I. D. 10P204

DESCRIPTION HPCI Booster Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket - Cover	28	Wax paper	TEMPERATURE (°F)	--	--	This part belongs to the pump bearing cover and is not vital for the pump performance.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

See Rationale

COMMENTS

PLANT I. D. 10P204 DESCRIPTION HPCI Booster Pump

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket - Cover	30	Wax paper	TEMPERATURE (°F)	--	--	This part belongs to the pump bearing cover and is not vital for the pump performance.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

See Rationale

COMMENTS

PLANT I. D. 10P204 DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/Q21 REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (end cover to housing)	35	Wax paper	TEMPERATURE (°F)	--	--	This part is the end cover gasket for the bearing and is not vital for the performance of the pump.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

See Rationale

COMMENTS

PLANT I. D. 10P204

DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (Sight Flow)	39	Wax paper	TEMPERATURE (°F)	--	--	Sight flow gasket is for the lube oil system and is not vital for performance of the pump.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A.Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

See Rationale

COMMENTS

PLANT I. D. 10P204

DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	11	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident

PLANT I. D. 10P204

DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	70	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/27-83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204 DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Oil Sight Window	40	Glass	TEMPERATURE (°F)	--	--	The oil sight window is not essential for pump performance.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RAKumar DATE 11/27/83

FOREIGN PRINT # 3031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

See Rationale

COMMENTS

PLANT I. D. 10P204

DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Rotating Face Gasket	19	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/27-83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204

DESCRIPTION HPCI Booster Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Gasket	43	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments		

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204

DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Gasket	60	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/27-83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A.A. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204 DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Sleave Gasket	49	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments		

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204

DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021

REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Stationary Face	61	Carbon G.E.-114	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 10P204 DESCRIPTION HPCI Booster Pump

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
U-Cup	41	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments		

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY JAkumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 10P204 DESCRIPTION HPCI Pump

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1 and 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
U-Cup	55	Ethylene Propylene (ASTM D-2000)	TEMPERATURE (°F)	See aging analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/27-83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C001-K-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	10P213	Description	HPCI Turbine Auxiliary Oil Pump	Equip. Manuf.	Byron Jackson
System/CCP	High Pressure Coolant Injection/021	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-56, Rev. 13	Foreign Print #		P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	140	83	115	1	115	1
Pressure (PSIG)	290	83	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/5/83

Prepared By B. R. Patel Date 12/5/83

Reviewed By P.K. Kumar Date 12/6/83

Plant I.D. 10S211 Description HPCI Pump Turbine Equip. Manuf. Terry

System/CCP High Pressure Coolant Injection/021 Area/Elev./Rm. # 15/177'/109 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-55 Rev. 17 Foreign Print # 8031-M-1-E41-C002-B-3.3 P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	115	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.76×10^{6}* 3.6×10^{9}**	71	8.46×10^{5}	1	4.01×10^{5} (Gamma) 1.77×10^{4} (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13 & 61
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/5/83

Prepared By B. R. Patel Date 12/5/83

Reviewed By P.K.Kumar Date 12/6/83

Comments *Normal and Accident Gamma

**Accident Beta

PLANT I. D. 10S211 DESCRIPTION HPCI Turbine

SYSTEM/CCP High Pressure Coolant Injection/021 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	2,33, 35,&95	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/26/83

PREPARED BY V. Pichai DATE 10/26/83

REVIEWED BY P.K. Amar DATE 11/27/83

FOREIGN PRINT # 8031-M-1-E41-C002-B-3.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F041	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	11/283'/ (See Comments)	M.R./M.R. Item #	M-231/6.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: V. Archai Date: 11-28-83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F041

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pochai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F041 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Srthai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F041 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F041

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F043A	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	11/283'/ (See Comments)	M.R./M.R. Item #	M-231/7.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Pichai Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F043A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orlai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F043A

DESCRIPTION Flow Limiting Valve

SYSTEM/UCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F043A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Dirchai DATE 11/28/83

FORM PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F043A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-142-1F043B	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	12/283'/ (See Comments)	M.R./M.R. Item #	M-231/7.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: V. Vichai Date: 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F043B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchen DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F043B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F043B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F043B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orthai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F045A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 15/283'/ (See Comments) | M.R./M.R. Item # M-231/8.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Sethi Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F045A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Prochai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F045A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F045A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F045A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pitchi DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F045B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 12/283'/ (See Comments) | M.R./M.R. Item # M-231/8.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Pitchai Date 11/27/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F045B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F045B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F045B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Ostrau DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F045B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F045C	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boile· Instrumentation/022	Area/Elev./Rm. #	15/283'/ (See Comments)	M.R./M.R. Item #	M-231/8.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).
Revision #	0	Date	8-12-83		
Prepared By	B. R. Patel	Date	8-12-83		
Reviewed By	V. Orchard	Date	11/27/83		

PLANT I. D. XV-42-1F045C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F045C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orzhai DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F045C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F045C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F045D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 16/283'/ (See Comments) | M.R./M.R. Item # M-231/8.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8-12-83

Prepared By B. R. Patel | Date 8-12-83

Reviewed By V. Pathak | Date 11/27/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F045D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orehan DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F045D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F045D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchan DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F045D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS ?

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F047A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 15/283'/ (See Comments) | M.R./M.R. Item # M-231/9.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8-12-83

Prepared By B. R. Patel | Date 8-12-83

Reviewed By V. Dirkar | Date 11/27/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F047A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchai DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F047A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archuleta DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F047A

DESCRIPTION Flow Limiting Valve

SYSTEM/UCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archuai DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F047A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/27/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F047B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 12/283'/ (See Comments) | M.R./M.R. Item # M-231/9.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Chetan Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F047B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION		
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-
			PRESSURE (PSIG)	N/A	27
			RADIATION (Rads)	-	-
			HUMIDITY (%)	N/A	27
			AGING ANALYSIS	-	-

RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:

This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F047B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orlowski DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F047B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Prichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F047B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F049A	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	15/283'/ (See Comments)	M.R./M.R. Item #	M-231/10.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Orchard Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F049A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F049A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F049A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orehan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F049A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F049B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 16/283'/ (See Comments) | M.R./M.R. Item # M-231/10.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Orchard Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F049B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F049B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orehan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F049B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pachwai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F049B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F051A	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	11/217'/ (See Comments)	M.R./M.R. Item #	M-231/11.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Orchard Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F051A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archea DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F051A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F051A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archer DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F051A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F051B	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	12/217'/ (See Comments)	M.R./M.R. Item #	M-231/11.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: V. Chitwai Date: 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F051B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orehan DATE 11/28/83

FOREIGN PRINT # 3031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F051B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	52	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F051B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F051B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orthai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F051C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 11/217'/ (See Comments) | M.R./M.R. Item # M-231/11.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	160 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Chetan Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F051C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F051C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archa DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F051C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Richeri DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F051C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Dichan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-1J

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F051D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 16/217'/ (See Comments) | M.R./M.R. Item # M-231/11.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Orchard Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F051D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F051D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F051D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Parchuri DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F051D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F053A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 11/217'/ (See Comments) | M.R./M.R. Item # M-231/12.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Orchan Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F053A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pitchai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F053A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY J. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F053A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 3031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F053A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F053B	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	12/217'/ (See Comments)	M.R./M.R. Item #	M-231/12.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: V. Pichai Date: 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. .Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F053B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFOPM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F053B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orehan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F053B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orhai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F053B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pithan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F053C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 11/217'/ (See Comments) | M.R./M.R. Item # M-231/12.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Pochai Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F053C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pitchai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F053C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F053C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orlando DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F053C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/13/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F053D	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	16/217'/ (See Comments)	M.R./M.R. Item #	M-231/12.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: V. Orchai Date: 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XX-42-1F053D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pachai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F053D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/C22

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F053D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archuleta DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F053D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Achai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F055	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	15/217'/ (See Comments)	M.R./M.R. Item #	M-231/13.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By V. Archai Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F055 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orehan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F055 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orehar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F055 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Dichai DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F055 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY H A Kuwar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F057	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	15/217'/ (See Comments)	M.R./M.R. Item #	M-231/14.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Enviro... Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: AKumar Date: 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F057 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F057 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKeenan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F057 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKeenan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F057 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F059A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 15/217'/ (See Comments) | M.R./M.R. Item # M-231/15.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8-12-83

Prepared By B. R. Patel | Date 8-12-83

Reviewed By PAKuman | Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY [signature] DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Form #2 EQRR # 22 SHEET 2 OF 5

PLANT I. D. XV-42-1FC59A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKenney DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKeenan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F059B	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	12/217'/ (See Comments)	M.R./M.R. Item #	M-231/15.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: BRKumar Date: 11/20/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKuman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY JAKenon DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY [signature] DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F059C	Description Flow Limiting Valve	Equip. Manuf. Marotta
System/CCP Nuclear Boiler Instrumentation/022	Area/Elev./Rm. # 15/217'/ (See Comments)	M.R./M.R. Item # M-231/15.1
Ref. Dwg. # P&ID M-42 Rev. 10	Foreign Print # 8031-M-231-1-10	P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By AKumar Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY H Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY HAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F059D	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	12/217'/ (See Comments)	M.R./M.R. Item #	M-231/15.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: [signature] Date: 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKuman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PA Kenan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PA Carman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F059E	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	15/217'/ (See Comments)	M.R./M.R. Item #	M-231/15.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: R A Kumar Date: 11/24/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059E

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059E

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY AKeman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059E

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059E

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAkumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F059F | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 12/217'/ (See Comments) | M.R./M.R. Item # M-231/15.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By JAkumar Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059F

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKuman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059F

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKenney DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059F

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKuman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059F

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKarman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Form #2 EQRR # 27 SHEET 5 OF 5

Plant I.D. XV-42-1F059G | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 11/217'/ (See Comments) | M.R./M.R. Item # M-231/15.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By PAKeman Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

Form #1 EQRR # 28 Sheet 1 of 5

PLANT I. D. XV-42-1F059G

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059G

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059G

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059G

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKumar DATE 11/20/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F059H	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	12/217'/ (See Comments)	M.R./M.R. Item #	M-231/15.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031 M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By A Kumar Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059H

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059H

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059H

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059H

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F059L	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	11/217'/ (See Comments)	M.R./M.R. Item #	M-231/15.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By A/Kumar Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059L

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY [illegible] DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059L

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY HAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059L

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/21/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059L

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^{9}	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F059M | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 16/217'/ (See Comments) | M.R./M.R. Item # M-231/15.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8-12-83

Prepared By B. R. Patel | Date 8-12-83

Reviewed By PAKumar | Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059M

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059M

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059M

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKaman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059M

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F059N	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	11/217'/ (See Comments)	M.R./M.R. Item #	M-231/15.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By H A Kumar Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059N

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059N

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY TAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059N

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059N

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F059P | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 16/217'/ (See Comments) | M.R./M.R. Item # M-231/15.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8-12-83

Prepared By B. R. Patel | Date 8-12-83

Reviewed By JAKumar | Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059P

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY JAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059P

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059P

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059P

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F059R	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	11/217'/ (See Comments)	M.R./M.R. Item #	M-231/15.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By P.K. Kumar Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F053R

DESCRIPTION Flow Limiting Valve

SYSTEM/EQP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059R

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059R

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059R

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F059S	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	16/217'/ (See Comments)	M.R./M.R. Item #	M-231/15.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By JAKumar Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059S

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059S

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY [illegible] DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059S

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059S

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F059T | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 11/217'/ (See Comments) | M.R./M.R. Item # M-231/15.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8-12-83

Prepared By B. R. Patel | Date 8-12-83

Reviewed By J.P. Kumar | Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059T

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PA Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059T

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A K Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059T

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY P.A. Kuman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059T

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F059U	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	16/217'/ (See Comments)	M.R./M.R. Item #	M-231/15.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8-12-83

Prepared By: B. R. Patel Date: 8-12-83

Reviewed By: PAKumar Date: 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F059U

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F059U

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059U

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F059U

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F061 Description Flow Limiting Valve Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 Area/Elev./Rm. # 16/217'/ (See Comments) M.R./M.R. Item # M-231/16.1

Ref. Dwg. # P&ID M-42 Rev. 10 Foreign Print # 8031-M-231-1-10 P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By DAKewan Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F061 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F061 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F061 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F061 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F065A	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	15/283'/ (See Comments)	M.R./M.R. Item #	M-231/34.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By A Kumar Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F065A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RA Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F065A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F065A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F065A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PA Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-42-1F065B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler Instrumentation/022 | Area/Elev./Rm. # 12/283'/ (See Comments) | M.R./M.R. Item # M-231/34.1

Ref. Dwg. # P&ID M-42 Rev. 10 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By [signature] Date 11/28/83

Comments Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F065B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F065B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F065B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F065B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-42-1F076	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Nuclear Boiler Instrumentation/022	Area/Elev./Rm. #	16/217'/ (See Comments)	M.R./M.R. Item #	M-231/39.1
Ref. Dwg. #	P&ID M-42 Rev. 10	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8-12-83

Prepared By B. R. Patel Date 8-12-83

Reviewed By A Kumar Date 11/28/83

Comments: Room number not identified for flow limiting valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-42-1F076

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PA Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-42-1F076 DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY RAKinney DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F076

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKuney DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-42-1F076

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler Instrumentation/022

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY PAKuman DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-51-105A	Description	Motor Op. Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/201'/203	M.R./M.R. Item #	P-102C/4.5
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-7-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lemm Date 11/28/83

PLANT I. D. HV-51-105A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-105A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-105B	Description	Motor Op. Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/204	M.R./M.R. Item #	P-102C/4.5
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-7-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lew Date 11/28/83

PLANT I. D. HV-51-105B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lew DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-105B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sato DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-125A | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 11/217'/304 | M.R./M.R. Item # P-103A/2.3

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-103AC-1-12 | P.O. # P-103A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	320	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7 *	70 & 71	8.78×10^2 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments *Accident and Normal Gamma

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

Reviewed By D. Sefton | Date 11/28/83

PLANT I. D. HV-51-125A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Selman DATE 11/28/83

FOREIGN PRINT # 8031-P-103AC-1-12

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-125A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Chia DATE 11/28/83

FOREIGN PRINT # 8031-P-103AC-1-12

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-125A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-103AC-1-12

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-125B	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	12/217'/304	M.R./M.R. Item #	P-103A/2.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-103AC-1-12	P.O. #	P-103A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	320	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7 *	70 & 71	8.78×10^2 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Leta Date 11/20/83

PLANT I. D. HV-51-125B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lewa DATE 11/30/83

FOREIGN PRINT # 8031-P-103AC-1-12

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-125B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/30/83

FOREIGN PRINT # 8031-P-103AC-1-12

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-125B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Lam DATE 11/30/83

FOREIGN PRINT # 8031-P-103AC-1-12

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-130	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/201'/288	M.R./M.R. Item #	P-102A/5.27
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102A-153-3	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	298	1
Pressure (PSIG)	125	3	-1/4" W.G.	1	6.1	1
Radiation (Rads)	3.45×10^5*	70 & 71	8.46×10^5 (Gamma)	1	7.71×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Accident and Normal Gamma
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Lesa	Date	11/30/83		

PLANT I. D. HV-51-130

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	100	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-153-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-130

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	110	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leon DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-153-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-130

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	111	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sehgal DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-153-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-131	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	P-102A/5.27
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102A-153-3	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	120	1	264	1
Pressure (PSIG)	125	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	3.45×10^5*	70 & 71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	45	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Sepp Date 11/30/83

PLANT I. D. HV-51-131

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	100	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-153-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-131

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	110	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-153-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-131

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	111	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/22/83

FOREIGN PRINT # 8031-P-102A-153-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-142A	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15C/286'/Z-2	M.R./M.R. Item #	P-114A/8.11
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-114A-46-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	5.03×10^6*	70 & 71	1.8×10^7 (Gamma) 1.1×10^7 (Neutron)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

Revision # 1 Date 12/6/83

Prepared By B. R. Patel Date 12/6/83

Reviewed By D. Patel Date 12/6/83

*Accident and Normal Gamma

PLANT I. D. HV-51-142A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-142A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-142A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lepon DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-51-142B	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	12C/286'/Z-2	M.R./M.R. Item #	P-114A/8.11
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-114A-46-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	5.03×10^6*	70 & 71	1.8×10^7 (Gamma) 1.1×10^7 (Neutron)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

Revision # 1 Date 12/6/83

Prepared By B. R. Patel Date 12/6/83

Reviewed By D. Lem Date 12/6/83

*Accident and Normal Gamma

PLANT I. D. HV-51-142B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-142B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Letts DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-142B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lemon DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-51-142C	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	11C/286'/Z-2	M.R./M.R. Item #	P-114A/8.11
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-114A-46-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	5.03×10^6*	70 & 71	1.8×10^7 (Gamma) 1.1×10^7 (Neutron)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

Revision # 1 Date 12/6/83

Prepared By B. R. Patel Date 12/6/83

Reviewed By D. Lem Date 12/6/83

*Accident and Normal Gamma

PLANT I. D. HV-51-142C

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-142C

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	1	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-142C

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lerma DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D. HV-51-142D | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16C/286'/Z-2 | M.R./M.R. Item # P-114A/8.11

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-114A-46-10 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	5.03×10^6*	70 & 71	1.8×10^7 (Gamma) 1.1×10^7 (Neutron)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By B. R. Patel Date 12/6/83

Reviewed By D. Lerm Date 12/6/83

Comments Valve subject to chemical spray.

*Accident and Normal Gamma

PLANT I. D. HV-51-142D

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lew DATE 11/20/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-142D

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-142D

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Sefa DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-51-151A	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15C/253'/Z-4	M.R./M.R. Item #	P-114A/8.2
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-114A-68-6	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	150	1	340	1
Pressure (PSIG)	1500	3	.75	1	44	1
Radiation (Rads)	5.03×10^6*	70 & 71	1.8×10^7 (Gamma) 5.5×10^6 (Neutron)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

Revision # 1 Date 12/6/83

Prepared By B. R. Patel Date 12/6/83

Reviewed By D. Leto Date 12/6/83

*Accident and Normal Gamma

PLANT I. D. HV-51-151A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lean DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-68-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-151A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lew DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-68-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-151A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D Sloan DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-51-151B	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16C/253'/Z-4	M.R./M.R. Item #	P-114A/8.2
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-114A-68-6	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	150	1	340	1
Pressure (PSIG)	1500	3	.75	1	44	1
Radiation (Rads)	5.03×10^6*	70 & 71	1.8×10^7 (Gamma) 5.5×10^6 (Neutron)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

Revision # 1 Date 12/6/83

Prepared By B. R. Patel Date 12/6/83

Reviewed By D. Lehn Date 12/6/83

*Accident and Normal Gamma

PLANT I. D. HV-51-151B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepo DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-68-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-151B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lapp DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-68-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-151B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lee DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D. HV-51-153A | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/217'/309 | M.R./M.R. Item # P-114A/9.7

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-114A-44-6 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.90×10^6*	71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Comments *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By P. Lepa Date 11/30/83

PLANT I. D. HV-51-153A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lera DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-153B | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/217'/309 | M.R./M.R. Item # P-114A/9.7

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-114A-44-6 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.90×10^6*	71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments *Accident and Normal Gamma

Revision # 0 | Date 8/12/83

Prepared By B.R. Patel | Date 8/12/83

Reviewed By D. Leon | Date 11/30/83

PLANT I. D. HV-51-153B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Lam DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-157A | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/201'/203 | M.R./M.R. Item # P-114A/14.1

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-114A-160-4 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.92×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 1 | Date 12/6/83

Prepared By B. R. Patel | Date 12/6/83

Reviewed By D. Lean | Date 12/6/83

PLANT I. D. HV-51-157A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-160-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-157A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Jean DATE 11/21/83

FOREIGN PRINT # 8031-P-114A-160-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-157A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Letts DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D. HV-51-157B | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # P-114A/14.1

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-114A-160-4 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.92×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 1 | Date 12/6/83

Prepared By B. R. Patel | Date 12/6/83

Reviewed By D. Lepa | Date 12/6/83

PLANT I. D. HV-51-157B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lean DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-160-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-157B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/20/83

FOREIGN PRINT # 8031-P-114A-160-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-157B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Seton DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D. HV-51-1F003A | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/201'/203 | M.R./M.R. Item # P-102B/4.3

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-P-102B-6-9 | P.O. # P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7 *	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lepa Date 11/20/83

PLANT I. D. HV-51-1F003A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. [illegible] DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F003A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lehn DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F003A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F003B	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/204	M.R./M.R. Item #	P-102B/4.3
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102B-6-9	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision #: 0 Date: 8/12/83

Prepared By: B.R. Patel Date: 8/12/83

Reviewed By: D. Lepa Date: 11/6/83

PLANT I. D. HV-51-1F003B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F003B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F003B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sean DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-1F004A | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/177'/102 | M.R./M.R. Item # P-103A/3.5

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-P-103-9-8 | P.O. # P-103 A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.69×10^7 *	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	44	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lew Date 11/20/83

PLANT I. D. HV-51-1F004A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F004A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F004A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/23/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F004B	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	P-103A/3.5
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-103-9-8	P.O. #	P-103A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.69×10^7 *	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	44	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. [illegible] Date 11/23/83

PLANT I. D. HV-51-1F004B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F004B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/30/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F004B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/30/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F004C	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	P-103A/3.5
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-103-9-8	P.O. #	P-103 A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.69×10^7 *	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	44	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Leon Date 11/20/83

PLANT I. D. HV-51-1F004C

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F004C

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F004C

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-1F004D | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/177'/103 | M.R./M.R. Item # P-103A/3.5

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-P-103-9-8 | P.O. # P-103A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.69×10^7 *	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	44	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lepa Date 11/30/83

Comments *Accident and Normal Gamma

PLANT I. D. HV-51-1F004D

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F004D

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower [illegible]king	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Lobo DATE 11/30/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F004D

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-103-9-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-1F006A | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/177'/102 | M.R./M.R. Item # P-102B/5.1

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-P-102B-7-7 | P.O. # P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.69×10^7 *	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lee Date 11/30/83

Comments *Accident and Normal Gamma

PLANT I. D. HV-51-1F006A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Letta DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-7-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F006A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-7-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F006A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-102B-7-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F006B	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/103	M.R./M.R. Item #	P-102B/5.1
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102B-7-7	P.O. #	P-102 B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.69×10^7*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Leach Date 11/30/83

PLANT I. D. HV-51-1F006B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lexton DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-7-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F006B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sean DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-7-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F006B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/15/83

FOREIGN PRINT # 8031-P-102B-7-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F007A	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	P-102C/7.3
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102C-36-8	P.O. #	P-102 C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lea Date 11/30/83

PLANT I. D. HV-51-1F007A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/13/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Lopa DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-36-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F007A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-36-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. HV-51-1F007B | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # P-102C/7.3

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-P-102C-36-8 | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments *Accident and Normal Gamma

Revision # 0 | Date 8/12/83

Prepared By B.R. Patel | Date 8/12/83

Reviewed By D. Lew | Date 11/20/83

PLANT I. D. HV-51-1F007B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-1020-36-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F007B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leon DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-36-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. HV-51-1F007C | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/177'/102 | M.R./M.R. Item # P-102C/7.3

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-P-102C-36-8 | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Dela Date 11/30/83

PLANT I. D. HV-51-1F007C

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepin DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-36-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F007C

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepon DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-36-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-51-1F007D	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/103	M.R./M.R. Item #	P-102C/7.3
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102C-36-8	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lepo Date 11/20/83

PLANT I. D. HV-51-1F007D

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-36-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F007D

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-36-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-51-1F008	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/217'/309	M.R./M.R. Item #	P-107B/4.13
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-107B-57-8	P.O. #	P-107B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1260	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	1.69×10^7 *	70 & 71	8.46×10^5	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	48	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/12/83

Prepared By: B.R. Patel Date: 8/12/83

Reviewed By: D. Lexa Date: 11/30/83

Comments: *Accident and Normal Gamma

HELB Accident Ambient Conditions.

PLANT I. D. HV-51-1F008

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	11	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-107B-57-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F009	Description	Motor Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15C/253'/Z-5	M.R./M.R. Item #	P-107B/4.15
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-107B-57-8	P.O. #	P-107B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1260	3	3/4" w.g.	1	44	1
Radiation (Rads)	6.27×10^7*	70 & 71	8.8×10^4 (Gamma) 5.5×10^4 (Beta)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	48	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/12/83

Prepared By: B.R. Patel Date: 8/12/83

Reviewed By: D. Sexton Date: 11/30/83

Comments: Valve subject to chemical spray.

*Accident and Normal Gamma

PLANT I. D. HV-51-1F009

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	11	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/30/83

FOREIGN PRINT # 8031-P-107B-57-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F010A	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	11/217'/306	M.R./M.R. Item #	P-102A/16.1
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102A-8-5	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	120	1	264	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	5.49×10^5*	70 & 71	8.46×10^5	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	43	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/12/83

Prepared By: B.R. Patel Date: 8/12/83

Reviewed By: D. Lett Date: 11/30/83

Comments: HELB Accident Ambient Conditions.

*Accident and Normal Gamma

PLANT I. D. HV-51-1F010A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F010A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepton DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F010A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lexon DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F010B	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	12/217'/307	M.R./M.R. Item #	P-102A/16.1
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102A-8-5	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	120	1	264	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	5.49×10^5*	70 & 71	8.46×10^5	1	4.71×10^5 (Gamma) 1.77×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	43	1 hour,	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/12/83

Prepared By: B.R. Patel Date: 8/12/83

Reviewed By: D. Sexton Date: 11/30/83

Comments: HELB Accident Ambient Conditions.

*Accident and Normal Gamma

PLANT I. D. HV-51-1F010B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sexton DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on ~~EQ evaluation~~)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F010B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lemm DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F010B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lew DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F011A	Description	Motor Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/201'/203	M.R./M.R. Item #	P-102C/4.5
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102C-7-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.45×10^5*	70 & 71	5.09×10^5	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	1 hour	2

Overall EQ Status	Acceptable (See Form #2)	Comments	*Accident and Normal Gamma
Revision #	0	Date	8/12/83
Prepared By	B.R. Patel	Date	8/12/83
Reviewed By	D. Seton	Date	11/30/83

PLANT I. D. HV-51-1F011A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepo DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F011A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Lem DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. HV-51-1F011B | Description Motor Op. Gate Valve | Equip. Manuf. Velan

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/201'/204 | M.R./M.R. Item # P-102C/4.5

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-P-102C-7-14 | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.45×10^5*	70 & 71	5.09×10^5	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments *Accident and Normal Gamma

Revision # 0 | Date 8/12/83

Prepared By B.R. Patel | Date 8/12/83

Reviewed By D. Lenon | Date 11/30/83

PLANT I. D. HV-51-1F011B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F011B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lear DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-51-1F014A	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/201'/203	M.R./M.R. Item #	P-102B/21.5
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102B-72-6	P.O. #	P-102 B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Sefton Date 11/30/83

PLANT I. D. HV-51-1F014A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-72-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F014A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	20-2	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sutton DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-72-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed require conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F014A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	20	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leto DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-72-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F014B	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/204	M.R./M.R. Item #	P-102B/21.5
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102B-72-6	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	8/12/83		
Prepared By	B.R. Patel	Date	8/12/83		
Reviewed By	D. Lester	Date	11/30/83		

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PLANT I. D. HV-51-1F014B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D Lewis DATE 1/13/83

FOREIGN PART # 8031-P-102B-72-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F014B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	20-2	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-102B-72-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F014B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	20	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leon DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-72-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F015A	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'//309	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-E11-F015-C-2.2	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	264	1
Pressure (PSIG)	1500	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	1.26×10^7 *	70 & 71	8.46×10^5	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/12/83

Prepared By: B.R. Patel Date: 8/12/83

Reviewed By: D. Lehn Date: 11/30/83

Comments: HELB Accident Ambient Conditions

*Accident and Normal Gamma

PLANT I. D. HV-51-1F015A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lean DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F015-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F015A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F015-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. MV-51-1F015A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F015-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-1F015B | Description Motor Op. Globe Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/177'/309 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-M-1-E11-F015-C-2.2 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	264	1
Pressure (PSIG)	1500	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	1.26×10^7*	70 & 71	8.46×10^5	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lee Date 11/30/83

Comments HELB Accident Ambient Conditions.

*Accident and Normal Gamma

PLANT I. D. HV-51-1F015B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Senn DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F015-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F015B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lear DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F015-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F015B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lemm DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F015-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-15-1F016A	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/501	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-F016-C-2.2	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	260	3	115	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.66×10^6	70 & 71	7.89×10^4	1	7.10×10^5 (Gamma) 6.99×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	2	24 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision #: 0 Date: 8/12/83

Prepared By: B.R. Patel Date: 8/12/83

Reviewed By: P. Lewin Date: 11/30/83

PLANT I. D. HV-51-1F016A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-M-1-E11-F016-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F016A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-M-1-E11-F016-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F016A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F016-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F016B	Description	Motor Op. Gate Value	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/523	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-F016-C-2.2	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	260	3	115	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.66×10^6*	70 & 71	3.51×10^4	1	7.10×10^5 (Gamma) 6.99×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	2	24 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Accident and Normal Gamma
Revision #	0	Date	8/12/83		
Prepared By	B.R. Patel	Date	8/12/83		
Reviewed By	D. Lepa	Date	11/30/83		

PLANT I. D. HV-51-1F016B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F016-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F016B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F016-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F016B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F016-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-1F017A | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/177'/510 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-M-1-E11-F017-C-2-6BC | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.26×10^7*	70 & 71	1.26×10^6	1	4.15×10^6 (Gamma) $1.38 \times .10^6$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lepm Date 11/30/82

PLANT I. D. HV-51-1F017A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepton DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F017A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lehn DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F017A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Letts DATE 11/30/83

FOREIGN PRINT # M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-1F017B | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/177'/599 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # 8031-M-1-E11-F017-C-2-6BC | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.26×10^7*	70 & 71	3.51×10^4	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments *Accident and Normal Gamma

Revision # 0 | Date 8/12/83

Prepared By B.R. Patel | Date 8/12/83

Reviewed By B. Patel | Date 11/20/83

PLANT I. D. HV-51-1F017B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F017B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lester DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F017B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lopez DATE 11/30/83

FOREIGN PRINT # M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F017C	Description	Motor Op. Gate Value	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/510	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-E11-F017-C-2-6BC	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.26×10^7*	70 & 71	1.26×10^6	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Accident and Normal Gamma
Revision #	0	Date	8/12/83		
Prepared By	B.R. Patel	Date	8/12/83		
Reviewed By	D. Lepm	Date	11/30/83		

PLANT I. D. HV-51-1F017C

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepka DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F017C

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lester DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F017C

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Letts DATE 11/30/83

FOREIGN PRINT # M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F017D	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/599	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-E11-F017-C-2-6BC	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.26×10^7*	70 & 71	3.51×10^4	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Accident and Normal Gamma
Revision #	0	Date	8/12/83		
Prepared By	B.R. Patel	Date	8/12/83		
Reviewed By	D. Lee	Date	1/13/83		

PLANT I. D. HV-51-1F017D

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F017D

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lipton DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F017D

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lester DATE 11/30/83

FOREIGN PRINT # M-1-E11-F017-C-2-6BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F021A	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/501	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-E11-F016-C-2.2	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	260	3	115	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.66×10^6*	70 & 71	7.89×10^4	1	7.10×10^5 (Gamma) 6.99×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	2	24 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Accident and Normal Gamma
Revision #	0	Date	8/12/83		
Prepared By	B.R. Patel	Date	8/12/83		
Reviewed By	D. Lenton	Date	11/20/83		

PLANT I. D. HV-51-1F021A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Lepton DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F021-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on ~~EQ evaluation~~)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F021A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F021-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F021A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F021-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F021B	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/523	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-E11-F016-C-2.2	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	260	3	115	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.66×10^6*	70 & 71	3.51×10^4	1	7.10×10^5 (Gamma) 6.99×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	2	24 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Accident and Normal Gamma
Revision #	0	Date	8/12/83		
Prepared By	B.R. Patel	Date	8/12/83		
Reviewed By	D. Lee	Date	11/20/83		

PLANT I. D. HV-51-1F021B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F021-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F021B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Seth DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F021-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F021B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lekhan DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F021-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F022	Description	Motor Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15C/313'/Z-1	M.R./M.R. Item #	P-107B/4.7
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-107B-6-16BR	P.O. #	P-107B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	3.45×10^5*	70 & 71	8.4×10^6 (Gamma) 1.2×10^7 (Beta)	1	$4.68 \cdot 10^6$ (Gamma) 5.29×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	48	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

Revision # 1 Date 12/6/83

Prepared By B.R. Patel Date 12/6/83

Reviewed By D. Lepta Date 12/6/83

*Accident and Normal Gamma

PLANT I. D. HV-51-1F022

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	17	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 12/6/83

PREPARED BY D. Sexton DATE 12/6/83

REVIEWED BY V. Pichai DATE 12/6/83

FOREIGN PRINT # 8031-P-1078-6-163R

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81)

Plant I.D.	HV-51-1F023	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/217'/402	M.R./M.R. Item #	P-107A/11.1
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-107A-2-6	P.O. #	P-107A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.45×10^5*	70 & 71	3.51×10^4	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	48	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lyon Date 11/30/83

PLANT I. D. HV-51-1F023 DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY R. Seeman DATE 11/30/83

FOREIGN PRINT # 8031-P-107A-2-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F023

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-107A-2-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F024A	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	11/217'/306	M.R./M.R. Item #	P-102A/16.1
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102A-8-5	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	120	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7*	70 & 71	8.46×10^5	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lepa Date 11/30/83

PLANT I. D. HV-51-1F024A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lemm DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F024A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lexa DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F024A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F024B	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	12/217'/307	M.R./M.R. Item #	P-102A/16.1
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102A-8-5	P.O. #	P-102 A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	120	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7*	70 & 71	8.46×10^5	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision #: 0 Date: 8/12/83

Prepared By: B.R. Patel Date: 8/12/83

Reviewed By: D. Lem Date: 11/30/83

PLANT I. D. HV-5i-1F024B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Aeron DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F024B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F024B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepon DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-8-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F026A	Description	Motor Op. Gate Value	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	P-102C/4.5
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102C-7-14	P.O. #	P-102 C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.45×10^5*	70 & 71	5.09×10^5	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Senn Date 11/30/83

PLANT I. D. HV-51-1F026A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F026A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lemm DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV051-1F026B	Description	Motor Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/103	M.R./M.R. Item #	P-102C/4.5
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102C-7-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.45×10^5*	70 & 71	5.09×10^5	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lee Date 11/30/83

PLANT I. D. HV-51-1F026B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F026B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-51-1F027A	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/304	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-E11-F027-C-2.2	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	8.78×10^2	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lyon Date 11/30/83

PLANT I. D. HV-51-1F027A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F027-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F027A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepan DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F027-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F027A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lemon DATE 11/17/83

FOREIGN PRINT # 8031-M-1-E11-F027-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F027B	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/307	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-E11-F027-C-2.2	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	120	1	264	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	8.46×10^5	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Sepa Date 11/20/83

PLANT I. D. HV-51-1F027B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lyon DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F027-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F027B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F027-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F027B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. [illegible] DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-E027-C-2.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F040	Description	Motor Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/201'/203	M.R./M.R. Item #	P-102C/4.5
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-P-102C-7-14	P.O. #	P-102 C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	275	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	1.5	1
Radiation (Rads)	8.20×10^5*	70 & 71	5.09×10^5	1	4.98×10^4 (Gamma) 1.77×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	43	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D. Lapa Date 11/30/83

PLANT I. D. HV-51-1F040

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F040 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-51-1F041A	Description	Air Op. Check Valve	Equip. Manuf.	Atwood & Morrill
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15C/286'/Z-2	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-1-E11-F041-C-1.1	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	5.8×10^7*	70 & 71	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Value subject to chemical spray.

Revision #: 0 Date: 8/12/83

Prepared By: B.R. Patel Date: 8/12/83

*Accident and Normal Gamma

Reviewed By: D. Sethna Date: 11/30/83

PLANT I. D. HV-51-1F041A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gaskets	18 & 19	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lapa DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F041A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9	Graphite/ Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Letts DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F041A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spacer	316	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F041A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac	310	Viton	TEMPERATURE (°F)	-	-	Failure of part will not affect safety functioning of check valve. Check valve remains operable without air actuator.
Uneepac Ring	311 & 312	Viton	PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lerma DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F040-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. HV-51-1F041B | Description Air Op. Check Valve | Equip. Manuf. Atwood & Morrill

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 12C/286'/Z-2 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-1-E11-F041-C-1.1 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	5.84×10^7*	70 & 71	1.18×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

Reviewed By D. Sepa | Date 11/30/83

Comments Valve subject to chemical spray.

*Accident and Normal Gamma

PLANT I. D. HV-51-1F041B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gaskets	18 & 19	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lewis DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F041B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9	Graphite/ Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Depa DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F041B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spacer	316	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F041B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac	310	Viton	TEMPERATURE (°F)	-	-	Failure of part will not affect safety functioning of check valve. Check valve remains operable without air actuator.
Uneepac Ring	311 & 312	Viton	PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY B. Sexton DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F040-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. HV-51-1F041C | Description Air Op. Check Valve | Equip. Manuf. Atwood & Morrill

System/CCP Residual Heat Removal/C23 | Area/Elev./Rm. # 11C/286'/Z-2 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-1-E11-F041-C-1.1 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	5.84×10^7*	70 & 71	1.18×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lepon Date 11/30/83

Comments Valve subject to chemical spray.

*Accident and Normal Gamma

PLANT I. D. HV-51-1F041C

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gaskets	18 & 19	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leon DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F041C

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9	Graphite/ Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F041C

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spacer	316	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/20/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F041C

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac	310	Viton	TEMPERATURE (°F)	-	-	Failure of part will not affect safety functioning of check valve. Check valve remains operable without air actuator.
Uneepac Ring	311 & 312	Viton	PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/20/83

FOREIGN PRINT # 8031-M-1-E11-F040-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. HV-51-1F041D | Description Air Op. Check Valve | Equip. Manuf. Atwood & Morrill

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16C/286'/Z-2 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-1-E11-F041-C-1.1 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	120	3	.75	1	44	1
Radiation (Rads)	5.84×10^7 *	70 & 71	1.18×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lepa Date 11/30/83

Comments Valve subject to chemical spray.

*Accident and Normal Gamma

PLANT I. D. HV-51-1F041D

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gaskets	18 & 19	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F041D

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9	Graphite/ Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leto DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F041D

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spacer	316	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F041-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F041D

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac	310	Viton	TEMPERATURE (°F)	-	-	Failure of part will not affect safety functioning of check valve. Check valve remains operable without air actuator.
Uneepac Ring	311 & 312	Viton	PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D Lekan DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F040-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	HV-51-1F047A	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	P-102B/4.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102B-6-9	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	120	1	264	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.67×10^6*	70 & 71	8.46×10^5 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	43	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: HELB Accident Ambient Conditions.

Revision #: 0 Date: 8/12/83

Prepared By: B. R. Patel Date: 8/12/83

Reviewed By: D. Lenn Date: 11/30/83

*Accident and Normal Gamma

PLANT I. D HV-51-1F047A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sepan DATE 11/20/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F047A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	18A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F047A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sen DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-1F047B | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/217'/309 | M.R./M.R. Item # P-102B/4.3

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-102B-6-9 | P.O. # P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	120	1	264	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.67×10^6*	70 & 71	8.46×10^5 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	43	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Comments HELB Accident Ambient Conditions.

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Senn Date 11/30/83

*Accident and Normal Gamma

PLANT I. D. HV-51-1F047B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-57-1F047B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F047B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F049	Description	Motor Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/201'/203	M.R./M.R. Item #	P-102C/4.5
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-7-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	275	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	1.5	1
Radiation (Rads)	8.20×10^5*	70 & 71	5.09×10^5 (Gamma)	1	4.98×10^5 (Gamma) 1.77×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	43	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By P. Sekar Date 11/20/83

PLANT I. D. HV-51-1F049

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepe DATE 11/20/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F049

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Spiral Wound Gasket	12	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sehm DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-7-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Form #2 EQRR # 62

Plant I.D. HV-51-1F050A Description Air Op. Stop Check Valve Equip. Manuf. Atwood & Morrill

System/CCP Residual Heat Removal/023 Area/Elev./Rm. # 11C/253'/Z-4 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev. 17 Foreign Print # 8031-M-1-E11-F050-B-001.2 P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	150	1	340	1
Pressure (PSIG)	1500	3	.75	1	44.0	1
Radiation (Rads)	5.84×10^7*	70 & 71	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments Valve subject to chemical spray.

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83 *Accident and Normal Gamma

Reviewed By D. Serra Date 11/30/83

Form #1 EQRR # 63 Sheet 1 of 5

PLANT I. D. Hv-51-1F050A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gaskets	18 & 19	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F050-B-001.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F050A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9	Graphite/ Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F050-B-001.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F050A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spacer	316	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-1050-B-001.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F050A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac	310	Viton	TEMPERATURE (°F)	-	-	Failure of part will not affect safety functioning of check valve. Check valve remains operable without air actuator.
Uneepac Ring	311 & 312	Viton	PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Seto DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F050-B-001.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. HV-51-1F050B | Description Air Op. Stop Check Valve | Equip. Manuf. Atwood & Morrill

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16C/253'/Z-4 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-1-E11-F050-B-001.2 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	150	1	340	1
Pressure (PSIG)	1500	3	.75	1	44.0	1
Radiation (Rads)	5.84×10^7*	70 & 71	1.18×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray.

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

*Accident and Normal Gamma

Reviewed By D. Sen | Date 11/21/83

Form #1 EQRR # 64 Sheet 1 of 5

PLANT I. D. HV-51-1F050B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gaskets	18 & 19	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F050-B-001.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F050B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9	Graphite/ Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Jeyan DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F050-B-001.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F050B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spacer	316	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/20/83

FOREIGN PRINT # 8031-M-1-E11-F050-B-001.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F050B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac	310	Viton	TEMPERATURE (°F)	-	-	Failure of part will not affect safety functioning of check valve. Check valve remains operable without air actuator.
Uneepac Ring	311 & 312	Viton	PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS			

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-F050-B-001.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	HV-51-1F052A	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	P-104C/6.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-104C-5-4	P.O. #	P-104C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	7.4	1
Radiation (Rads)	1.90×10^{6}* 1.1×10^{9}**	71 & 80	8.46×10^{5} (Gamma)	1	7.11×10^{5} (Gamma) 5.91×10^{2} (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	45	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Accident and Normal Gamma
Revision #	1	Date	12/6/83		**Accident Beta
Prepared By	B.R. Patel	Date	12/6/83		
Reviewed By	D. Lyon	Date	12/6/83		

PLANT I. D. HV-51-1F052A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lew DATE 11/16/83

FOREIGN PRINT # 8031-P-104C-5-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F052A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-104C-5-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-1F052B | Description Motor Op. Globe Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/217'/309 | M.R./M.R. Item # P-104C/6.7

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-104C-5-4 | P.O. # P-104C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	1.4	1
Radiation (Rads)	1.90×10^6* 1.1×10^9**	71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	45	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By B.R. Patel Date 12/6/83

Reviewed By A. Date 12/6/83

Comments *Accident and Normal Gamma

**Accident Beta

PLANT I. D. HV-51-1F052B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-104C-5-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F052B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Apte DATE 11/20/83

FOREIGN PRINT # 8031-P-104C-5-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-51-1F068A | Description Motor Op. Globe Valve | Equip. Manuf. Anchor/Darling

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/201'/203 | M.R./M.R. Item # P-102A/17.1

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-102A-9-7 | P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

Reviewed By P. Lepa | Date 11/30/83

PLANT I. D. HV-51-1F068A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	56	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-9-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F068A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-9-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F068A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leon DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-9-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F068B	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/204	M.R./N.R. Item #	P-102A/17.1
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102A-9-7	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	120	3	115	1	115	1
Pressure (PSIG)	155	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Lepor	Date	11/30/83		

PLANT I. D. HV-51-1F068B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Heat Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/20/83

FOREIGN PRINT # 8031-P-102A-9-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F068B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/UCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Lower	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lenn DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-9-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F068B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing-Upper	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Aspa DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-9-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F073	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/204	M.R./M.R. Item #	P-102B/21.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102B-71-8	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Senn	Date	11/30/83		

PLANT I. D. HV-51-1F073

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-71-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F073

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	20-2	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-71-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F073

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	20	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lutz DATE 11/20/83

FOREIGN PRINT # 8031-P-102B-71-8

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F075	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/103	M.R./M.R. Item #	P-102B/4.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102B-6-9	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Lam	Date	11/30/83		

PLANT I. D. HV-51-1F075 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-51-1F075

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F075 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	31	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sen DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-6-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	HV-51-1F079A	Description	Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/203	M.R./M.R. Item #	P-114A/7.11
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-114A-45-5	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision #: 1 Date: 12/6/83

Prepared By: B. R. Patel Date: 12/6/83

Reviewed By: D. Lem Date: 12/6/83

PLANT I. D. HV-51-1F079A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sella DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-1F079A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepe DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F079A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lee DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-51-1F079B	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/204	M.R./M.R. Item #	P-114A/7.11
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-114A-45-5	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 1 Date 12/6/83

Prepared By B. R. Patel Date 12/6/83

Reviewed By [signature] Date 12/6/83

PLANT I. D. HV-51-1F079B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-1F079B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # C DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lew DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F079B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lefton DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D. HV-51-1F080A | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/177'/203 | M.R./M.R. Item # P-114A/7.68

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-114A-45-5 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments *Accident and Normal Gamma

Revision # 1 | Date 12/6/83

Prepared By B. R. Patel | Date 12/6/83

Reviewed By A. Lepo | Date 12/6/83

PLANT I. D. HV-51-1F080A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Senn DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-1F080A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sexton DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F080A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lenz DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-51-1F080B	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/204	M.R./M.R. Item #	P-114A/7.68
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-114A-45-5	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

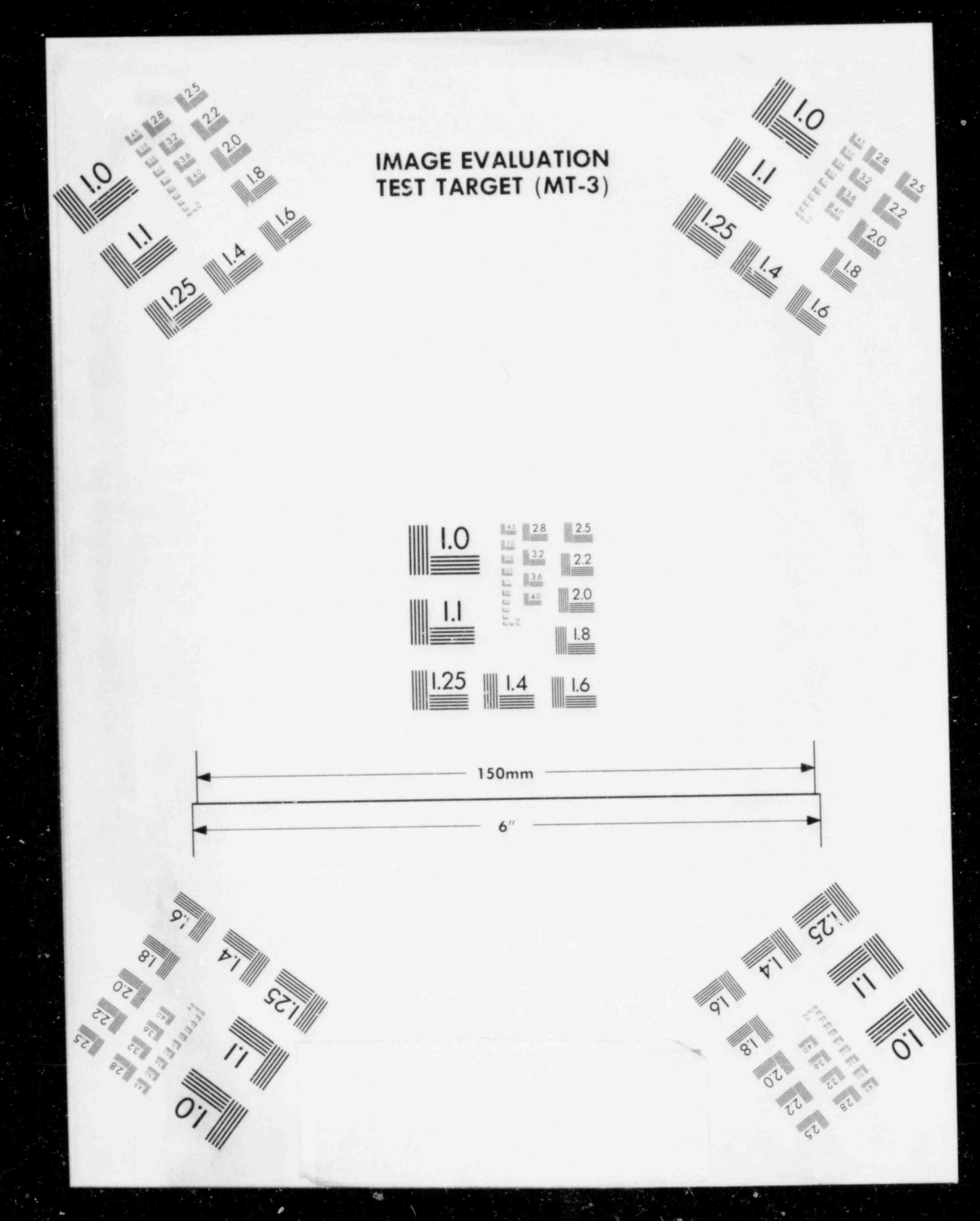
Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 1 Date 12/6/83

Prepared By B. R. Patel Date 12/6/83

Reviewed By D. Lepa Date 12/6/83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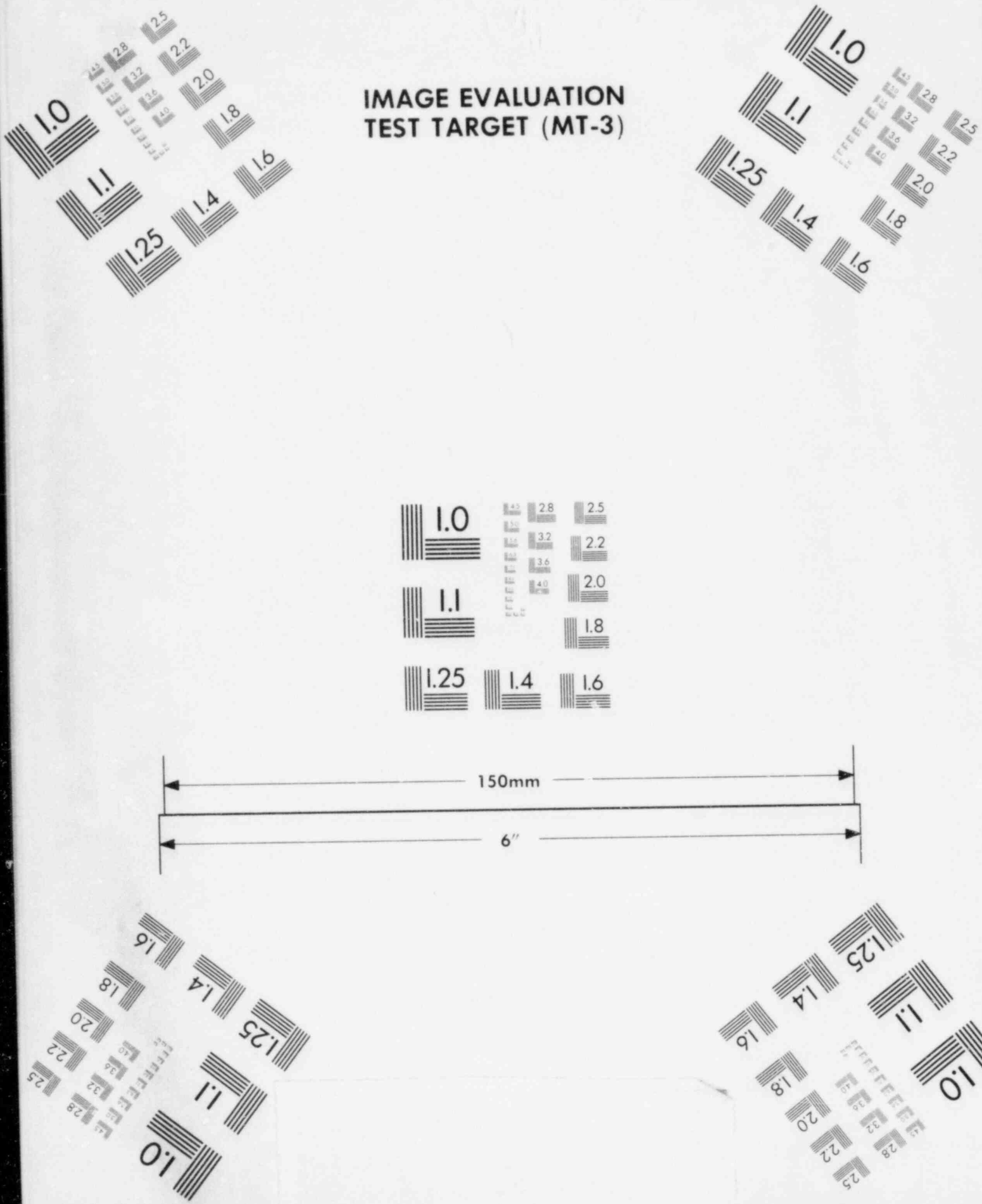
IMAGE EVALUATION
TEST TARGET (MT-3)
1.0
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4.0
150mm
6"

PLANT I. D. HV-51-1F080B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Part removed prior to valve installation. Not required to perform safety function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. [illegible] DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-51-1F080B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lefton DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-51-1F080B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Sethi DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety functior (See Rationale).

Plant I.D. HVC-51-1F048A | Description Motor Op. Butterfly Valve | Equip. Manuf. Fisher

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/217'/309 | M.R./M.R. Item # M-242/2.1

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # | P.O. # M-242

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	120	1	264	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	1.45×10^7*	70 & 71	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	41	180 days	2

Overall EQ Status

Revision # 0 Date 8/12/83

Prepared By B.R. Patel Date 8/12/83

Reviewed By D Lepan Date 11/10/83

Comments HELB Accident Ambient Conditions

*Accident and Normal Gamma

Form #1 EQRR # 75 Sheet 1 of

Plant I.D. HVC-51-1F048B | Description Motor Op. Butterfly Valve | Equip. Manuf. Fisher

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/217'/309 | M.R./M.R. Item # M-242/2.1

Ref. Dwg. # P&ID M-51 Rev.17 | Foreign Print # | P.O. # M-242

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	120	1	264	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	1.45×10^7 *	70 & 71	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) $1 \times 38 \times 10^6$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					NO	13
Required Operating Time			40 Years	41	180 days	2

Overall EQ Status

Revision # 0 | Date 8/12/83

Prepared By B.R. Patel | Date 8/12/83

Reviewed By D. Lem | Date 11/30/83

Comments HELB Accident Ambient Conditions

*Accident and Normal Gamma

Form #1 EQRR # 76 Sheet 1 of ___

Plant I.D. HVC-51-1F103A | Description Motor Op. Globe Valve | Equip. Manuf. Masonel

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/201'/203 | M.R./M.R. Item # M-250A/13.1

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-250A-68-2 | P.O. # M-250A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	1
Required Operating Time			40 years	42	180 days	13

Overall EQ Status Acceptable (See Form #2)

Comments *Accident and Normal Gamma

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lester Date 12/7/83

PLANT I. D. HVC-51-1F103A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	5	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 12/7/83

PREPARED BY D. Sexton DATE 12/7/83

REVIEWED BY AAkman DATE 12/8/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HVC-51-1F103A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Ring Gasket	12	S.S, and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY D. Lehr DATE 12/7/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. HVC-51-1F103A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Valve Body Gasket	16	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY D. Lem DATE 12/7/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HVC-51-1F103B	Description	Motor Op. Globle Valve	Equip. Manuf.	Masonel
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/203	M.R./M.R. Item #	M-250A/13.1
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-250A-68-2	P.O. #	M-250A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	42	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 1 Date 12/7/83

Prepared By B.R. Patel Date 12/7/83

Reviewed By [signature] Date 12/7/83

PLANT I. D. HVC-51-1F103B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	5	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 12/7/83

PREPARED BY D. Sexton DATE 12/7/83

REVIEWED BY PAKumar DATE 12/8/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HVC-51-1F103B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Ring Gasket	12	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY D. Lemon DATE 12/7/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. HVC-51-1F103B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Valve Body Gasket	16	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY D. Lepa DATE 12/7/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HVC-51-1F104A	Description	Motor Op. Globe Valve	Equip. Manuf.	Masonel
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	/ /203	M.R./M.R. Item #	M-250A/14.1
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-250A-68-2	P.O. #	M-250A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	42	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 1 Date 12/7/83

Prepared By B.R. Patel Date 12/7/83

Reviewed By D. Letton Date 12/7/83

PLANT I. D. HVC-51-1F104A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	5	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 12/7/83

PREPARED BY D. Sexton DATE 12/7/83

REVIEWED BY P.H. Kumar DATE 12/8/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HVC-51-1F104A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Ring	12	S.S, and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY D. Sean DATE 12/7/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. HVC-51-1F104A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Valve Body	16	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY D. Selna DATE 12/7/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HVC-51-1F104B	Description	Motor Op. Globe Valve	Equip. Manuf.	Masonel
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	/ / 203	M.R./M.R. Item #	M-250A/14.1
Ref. Dwg. #	P&ID M-51 Rev.17	Foreign Print #	8031-M-250A-68-2	P.O. #	M-250 A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					NO	13
Required Operating Time			40 Years	42	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 1 Date 12/7/83

Prepared By B.R. Patel Date 12/7/83

Reviewed By D. Sehgal Date 12/7/83

PLANT I. D. HVC-51-1F104B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	5	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	N/A	

REVISION # 0 DATE 12/7/83

PREPARED BY D. Sexton DATE 12/7/83

REVIEWED BY PAKumar DATE 12/8/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HVC-51-1F104B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Ring	12	S.S, and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY D. [illegible] DATE 12/7/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. HVC-51-1F104B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Valve Body	16	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY D. Lee DATE 12/7/83

FOREIGN PRINT # 8031-M-250A-68-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	PSV-51-101A	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	M-204B/26.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #		P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	412	3	120	1	120	1
Pressure (PSIG)	268	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status _____ Comments *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Sepm Date 11/20/83

Form #1 EQRR # 81 Sheet 1 of ___

Plant I.D.	PSV-51-101B	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/217'/309	M.R./M.R. Item #	M-204B/26.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #		P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	412	3	120	1	120	1
Pressure (PSIG)	268	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status _____

Comments *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D Senn Date 11/30/83

Form #1 EQRR # 82 Sheet 1 of ___

Plant I.D.	PSV-51-105A	Description	Pressure Relief Valve	Equip. Manuf.	
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #		P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____

Comments *Normal and Accident Ga...

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Letta Date 11/30/83

Form #1 EQRR # 83 Sheet 1 of ___

Plant I.D. PSV-51-105B | Description Pressure Relief Valve | Equip. Manuf.

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Comments *Normal and Accident Gamma

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

Reviewed By D. Lefton | Date 11/30/83

Form #1 EQRR # 84 Sheet 1 of

Plant I.D.	PSV-51-106A	Description	Pressure Relief Valve	Equip. Manuf.	
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #		P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^5 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments *Normal and Accident Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By [signature] Date 11/30/83

Form #1 EQRR # 85 Sheet 1 of ___

Plant I.D. PSV-51-106B | Description Pressure Relief Valve | Equip. Manuf.

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/177'/103 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.C.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Comments *Normal and Accident Gamma

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

Reviewed By D. Lem | Date 11/20/83

Form #1 EQRR # 86 Sheet 1 of

Plant I.D.	PSV-51-122	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15C/238'/Z-5	M.R./M.R. Item #	M-204B/30.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BB-80-4	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	330	1
Pressure (PSIG)	1115	3	.75	1	44.0	1
Radiation (Rads)	6.47×10^6*	70 & 71	8.8×10^6 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Sena Date 11/30/83

*Accident and Normal Gamma

PLANT I. D. PSV-51-122

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	26	Ethylene Propylene	TEMPERATURE (°F)	-	-	This part is used only for the manually operated lever. Automatic operation of the valve is independent of this part.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY D. Leon DATE 11/20/83

FOREIGN PRINT # 8031-M-204BB-80-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	PSV-51-155	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16C/238'/Z-4	M.R./M.R. Item #	M-204B/31.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BB-98-2	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	330	1
Pressure (PSIG)	1250	3	.75	1	44.0	1
Radiation (Rads)	6.47×10^6*	70 & 71	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lee Date 11/30/83

*Accident and Normal Gamma

PLANT I. D. PSV-51-155

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	26	Ethylene Propylene	TEMPERATURE (°F)	-	-	This part is used only for the manually operated lever. Automatic operation of the valve is independent of this part.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Letta DATE 11/30/83

FOREIGN PRINT # 8031-M-204BB-98-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	PSV-51-1F025A	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/283'/510	M.R./M.R. Item #	M-204B/5.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BA-22(1)-10	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	1.26×10^6 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Sepa Date 11/30/83

Plant I.D. PSV-51-1F025B | Description Pressure Relief Valve | Equip. Manuf. Lonergan

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 12/283'/599 | M.R./M.R. Item # M-204B/5.0

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-204BA-22(1)-10 | P.O. # M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status Acceptable (No non-metallic parts) | Comments *Accident and Normal Gamma

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

Reviewed By D. Leon | Date 11/20/83

Form #1 EQRR # 90 Sheet 1 of 1

Plant I.D.	PSV-51-1F025C	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	11/283'/510	M.R./M.R. Item #	M-204B-5.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BA-22(1)-10	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	1.26×10^6 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: *Accident and Normal Gamma

Revision #: 0 Date: 8/12/83

Prepared By: B. R. Patel Date: 8/12/83

Reviewed By: D. Sepm Date: 11/30/83

Form #1 EQRR # 91 Sheet 1 of 1

Plant I.D. PSV-51-1F025D | Description Pressure Relief Valve | Equip. Manuf. Lonergan

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/283'/599 | M.R./M.R. Item # M-204B/5.0

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-204BA-22(1)-10 | P.O. # M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status Acceptable (No non-metallic parts)

Comments *Accident and Normal Gamma

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

Reviewed By D. Lepa | Date 11/30/83

Plant I.D.	PSV-51-1F029	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/217'/103	M.R./M.R. Item #	M-204B/6.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BA-22(1)-10	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	115	1	115	1
Pressure (PSIG)	0	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By P. Kim Date 10/20/83

Form #1 EQRR # 93 Sheet 1 of 1

Plant I.D.	PSV-51-1F030A	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	M-204B/7.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BA-22(1)-10	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Leon Date 11/30/83

Plant I.D.	PSV-51-1F030B	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/103	M.R./M.R. Item #	M-204B/7.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BA-22(1)-10	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lepm Date 11/30/83

Plant I.D.	PSV-51-1F030C	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	M-204B/7.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BA-22(1)-10	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lepa Date 11/20/83

Form #1 EQRR # 96 Sheet 1 of 1

Plant I.D.	PSV-51-1F030D	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/103	M.R./M.R. Item #	M-204B/7.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BA-22(1)-10	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	190	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.73×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Detra Date 11/30/83

Plant I.D.	PSV-51-1F055A	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	M-204B-8.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BB-1-7BR	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	120	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lam Date 11/30/83

PLANT I. D. PSV-51-1F055A

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (Guide)	43	Asbestos	TEMPERATURE (°F)	1200	66	
Gasket (Bellows Adap.)	44	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/30/83

FOREIGN PRINT # 8031-M-204BB-1-7BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	PSV-51-1F055B	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/217'/309	M.R./M.R. Item #	M-204B/8.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BB-1-7BR	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	120	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	39	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Seen Date 11/30/82

PLANT I. D. PSV-51-1F055B

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (Guide)	43	Asbestos	TEMPERATURE (°F)	1200	66	
Gasket (Bellows Adap.)	44	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lam DATE 11/20/83

FOREIGN PRINT # 8031-M-204BB-1-7BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	PSV-51-1F097	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	M-204B-9.0
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-204BA-24(1)-14	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	275	1
Pressure (PSIG)	125	3	-1/4" W.G.	1	1.5	1
Radiation (Rads)	8.20×10^5*	70 & 71	5.09×10^5 (Gamma)	1	4.98×10^5 (Gamma) 1.77×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	39	6 hours	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By A Kumar Date 11/30/83

Plant I.D.	PVC-51-1F051A	Description	Air Op. Globe Valve	Equip. Manuf.	Masonel
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/201'/203	M.R./M.R. Item #	M-250A/2.1
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-250A-129-1	P.O. #	M-250A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	275	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	1.5	1
Radiation (Rads)	1.90×10^6*	71	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	42	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: HELB Accident Ambient Conditions.

Revision #: 1 Date: 12/6/83

Prepared By: B. R. Patel Date: 12/6/83

Reviewed By: A Kumar Date: 12/6/83

*Accident and Normal Gamma

PLANT I. D. PVC-51-1F051A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Body Gasket	10	304 S.S. and Asbestos	TEMPERATURE (°F)	1200	66	
Seat Ring Gasket	14	304 S.S. and Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-250A-129-1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. PVC-51-1F051A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-250A-129-1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	PVC-51-1F051B	Description	Air Op. Globe Valve	Equip. Manuf.	Masonel
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/204	M.R./M.R. Item #	M-250A/2.1
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-250A-129-1	P.O. #	M-250A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	275	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	1.5	1
Radiation (Rads)	1.90×10^6*	71	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	42	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision #: 1 Date: 12/6/83

Prepared By: B. R. Patel Date: 12/6/83

Reviewed By: A Kumar Date: 12/6/83

PLANT I. D. PVC-51-1F051B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Body Gasket	10	304 S.S. and Asbestos	TEMPERATURE (°F)	1200	66	
Seat Ring Gasket	14	304 S.S. and Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY A.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-250A-129-1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. PVC-51-1F051B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-250A-129-1

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-51-102A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/283'/ **(See Comments) | M.R./M.R. Item # M-231/27.1

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By A Kumar Date 11/30/83

Comments *Normal and Accident Gamma .

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-51-102A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-51-102A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKeman DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-102A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based ~~on EQ evaluation~~)

NON-METALLIC PART EQ STATUS Acceptable - Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-102A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-51-102B	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	12/283'/ **(See Comments)	M.R./M.R. Item #	M-231/27.1
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By P.K. Kumar Date 11/30/83

Comments: *Normal and Accident Gamma.

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-51-102B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-51-102B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-102B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylent	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F		

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKeenan DATE 11/30/87

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-102B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY RKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-51-102C	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/217'/ **(See Comments)	M.R./M.R. Item #	M-231/27.1
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By A Kumar Date 11/30/83

Comments: *Normal and Accident Gamma.

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-51-102C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-51-102C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-102C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY BAlcaman DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable -(Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-102C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY [signature] DATE 11/20/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-51-102D	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/283'/ **(See Comments)	M.R./M.R. Item #	M-231/27.1
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By PAKumar Date 11/30/83

Comments: *Normal and Accident Gamma.

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-51-102D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY R.A. Cumon DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale

COMMENTS

PLANT I. D. XV-51-102D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-102D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-102D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKuman DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-51-103A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/283'/ **(See Comments) | M.R./M.R. Item # M-231/38.1

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By M Kumar Date 11/30/83

Comments *Normal and Accident Gamma.

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-51-103A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-51-103A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKennan DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-103A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P.K.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-103A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-51-103B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 12/283'/ **(See Comments) | M.R./M.R. Item # M-231/38.1

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By BAkman Date 11/30/83

Comments *Normal and Accident Gamma.

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-51-103B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-51-103B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	63	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-103B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 10/15/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable- (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-103B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-51-103C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 15/283'/ **(See Comments) | M.R./M.R. Item # M-231/38.1

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By A Kumar Date 11/30/83

Comments *Normal and Accident Gamma .

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-51-103C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY BAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-51-103C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY A.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-103C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylent	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable- (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-103C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-51-103D	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/283'/ **(See Comments)	M.R./M.R. Item #	M-231/38.1
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By A Kumar Date 11/30/83

Comments: *Normal and Accident Gamma.

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-51-103D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and performs no safety function.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-51-103D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY RAKeenan DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-103D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-51-103D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1AP202	Description	RHR Pump	Equip. Manuf.	Ingersoll-Rand
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-1-E11-C002-C	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.82×10^7 *	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status	Acceptable (See Form #2)	Comments	*Normal and Accident Gamma
Revision #	1	Date	12/7/83
Prepared By	B. R. Patel	Date	12/7/83
Reviewed By	A Kumar	Date	12/8/83

PLANT I. D. 1AP202 DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	363	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-5.4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1AP202 DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	1866-32 & 37	Cranelast	TEMPERATURE (°F)	300	90	
			PRESSURE (PSIG)	N/A	27	
"O" Ring	1866-26 & 22	Cranelast	RADIATION (Rads)	1.1×10^8	90	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 1 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY PAKumar DATE 12/8/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-9.1

RECOMMENDED REPLACEMENT SCHEDULE See Comments

NON-METALLIC PART EQ STATUS Acceptable (See Comments)

COMMENTS Material deterioration, based on temperature material capabilities, may occur prior to end of 180 day required operating time. The leakage that may occur will not impair pump active operation.

PLANT I. D. 1AP202 DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	456A,B C, & D	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	56 hours @ 360°F	76	

REVISION # 0 DATE 8/12/83

PREPARED BY B. R. Patel DATE 8/12/83

REVIEWED BY RAKuman DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-5.4

RECOMMENDED REPLACEMENT SCHEDULE See Comments

NON-METALLIC PART EQ STATUS Acceptable (See Comments)

COMMENTS Material deterioration, based on aging analysis, may occur prior to end of 180 day required operating time. The leakage that may occur will not impair pump active operation.

Plant I.D.	1BP202	Description	RHR Pump	Equip. Manuf.	Ingersoll-Rand
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/103	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-1-E11-C002-C	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.82×10^7 *	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By PAkumar Date 12/8/83

PLANT I. D. 1BP202 DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	363	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY MK Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-5.4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1BP202 DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	1866-32 & 37	Cranelast	TEMPERATURE (°F)	300	90	
"O" Ring	1866-26 & 22	Cranelast	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.1×10^8	90	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 1 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY SAKumar DATE 12/8/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-9.1

RECOMMENDED REPLACEMENT SCHEDULE See Comments

NON-METALLIC PART EQ STATUS Acceptable (See Comments)

COMMENTS Material deterioration, based on temperature material capabilities, may occur prior to end of 180 day required operating time. The leakage that may occur will not impair pump active operation.

PLANT I. D. 1BP202

DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	456A,B C, & D	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	56 hours @ 360°F	76	

REVISION # 0 DATE 8/12/83

PREPARED BY B. R. Patel DATE 8/12/83

REVIEWED BY PAC mon DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-5.4

RECOMMENDED REPLACEMENT SCHEDULE See Comments

NON-METALLIC PART EQ STATUS Acceptable (See Comments)

COMMENTS Material deterioration, based on aging analysis, may occur prior to end of 180 day required operating time. The leakage that may occur will not impair pump active operation.

Plant I.D.	1CP202	Description	RHR Pump	Equip. Manuf.	Ingersoll-Rand
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-M-1-E11-C002-C	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.82×10^7*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By A Kumar Date 12/8/83

PLANT I. D. 1CP202 DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	363	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY BAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-5.4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1CP202 DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	1866-32 & 37	Cranelast	TEMPERATURE (°F)	300	90	
"O" Ring	1866-26 & 22	Cranelast	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.1×10^8	90	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 1 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY P.A. Kerman DATE 12/8/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-9.1

RECOMMENDED REPLACEMENT SCHEDULE See Comments

NON-METALLIC PART EQ STATUS Acceptable (See Comments)

COMMENTS Material deterioration, based on temperature material capabilities, may occur prior to end of 180 day required operating time. The leakage that may occur will not impair pump active operation.

PLANT I. D. 1CP202

DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	456A,B C, & D	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	56 hours @ 360°F	76	

REVISION # 0 DATE 8/12/83

PREPARED BY B. R. Patel DATE 8/12/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-5.4

RECOMMENDED REPLACEMENT SCHEDULE See Comments

NON-METALLIC PART EQ STATUS Acceptable (See Comments)

COMMENTS Material deterioration, based on aging analysis, may occur prior to end of 180 day required operating time. The leakage that may occur will not impair pump active operation.

Plant I.D. 1DP202 | Description RHR Pump | Equip. Manuf. Ingersoll-Rand

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-M-1-E11-C002-C | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.82×10^7*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments *Normal and Accident Gamma

Revision # 1 | Date 12/7/83

Prepared By B. R. Patel | Date 12/7/83

Reviewed By A Kumar | Date 12/8/83

PLANT I. D. 1DP202 DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	363	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY PMKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-5.4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1DP202 DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	1866-32 & 37	Cranelast	TEMPERATURE (°F)			
"O" Ring	1866-26 & 22	Cranelast	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.1×10^8	90	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 1 DATE 12/7/83

PREPARED BY V. Pichai DATE 12/7/83

REVIEWED BY PA Kumar DATE 12/8/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-9.1

RECOMMENDED REPLACEMENT SCHEDULE See Comments

NON-METALLIC PART EQ STATUS Acceptable (See Comments)

COMMENTS Material deterioration, based on temperature material capabilities, may occur prior to end of 180 day required operating time. The leakage that may occur will not impair pump active operation.

PLANT I. D. 1DP202

DESCRIPTION RHR Pump

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	456A,B C, & D	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	56 hours @ 360°F	76	

REVISION # 0 DATE 8/12/83

PREPARED BY B. R. Patel DATE 8/12/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E11-C002-C-5.4

RECOMMENDED REPLACEMENT SCHEDULE See Comments

NON-METALLIC PART EQ STATUS Acceptable (See Comments)

COMMENTS Material deterioration, based on aging analysis, may occur prior to end of 180 day required operating time. The leakage that may occur will not impair pump active operation.

Plant I.D.	1F019	Description	Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15C/313'/Z1-1	M.R./M.R. Item #	P-107A/6.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-107A-88-6	P.O. #	P-107A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	330	1
Pressure (PSIG)	1250	3	.75	1	44 .0	1
Radiation (Rads)	3.45×10^5*	70 & 71	8.4×10^6 (Gamma) 1.2×10^7 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	48	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

Revision #: 0 Date: 8/12/83

Prepared By: B. R. Patel Date: 8/12/83

Reviewed By: D. Seven Date: 11/30/83

Form #1 EQRR # 115 Sheet 1 of 2

PLANT I. D. 1F019

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	101	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leva DATE 11/30/83

FOREIGN PRINT # 8031-P-107A-88-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F031A	Description	Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/201'/102	M.R./M.R. Item #	P-102B/12.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102B-10-6	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By P. Lem Date 11/20/83

PLANT I. D. 1F031A

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lew DATE 11/20/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1F031A

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	39	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Lam DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. 1F031A

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	39-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Seron DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	1F031B	Description	Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/103	M.R./M.R. Item #	P-102B/12.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102B-10-6	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lew Date 11/30/83

PLANT I. D. 1F031B

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Bonnet Gasket	3	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. [illegible] DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1F031B

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	39	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sivo DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. 1F031B

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	39-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sells DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	1F031C	Description	Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/201'/102	M.R./M.R. Item #	P-102B/12.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102B-10-6	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7 *	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Normal and Accident Gamma
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Sepan	Date	11/30/83		

PLANT I. D. 1F031C

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lemon DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1F031C

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	39	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. 1F031C

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & ?

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	39-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sepa DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	1F031D	Description	Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/103	M.R./M.R. Item #	P-102B/12.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102B-10-6	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Normal and Accident Gamma
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Lew	Date	11/30/83		

PLANT I. D. 1F031D

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/20/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1F031D

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	39	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. 1F031D

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	39-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Seton DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	1F046A	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Normal and Accident Gamma
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Sefton	Date	11/30/83		

PLANT I. D. 1F046A

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 1F046B | Description Check Valve | Equip. Manuf. Velan

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # P-102C/12.7

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-102C-3-14 | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments *Normal and Accident Gamma

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

Reviewed By D. Lerm | Date 11/30/83

PLANT I. D. 1F046B

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lyon DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F046C	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/102	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Normal and Accident Gamma
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Lemon	Date	11/30/83		

PLANT I. D. 1F046C

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 1F046D | Description Check Valve | Equip. Manuf. Velan

System/CCP Residual Heat Removal/023 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # P-102C/12.7

Ref. Dwg. # P&ID M-51 Rev. 17 | Foreign Print # 8031-P-102C-3-14 | P.O. # P-102C/12.7

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments *Normal and Accident Gamma

Revision # 0 | Date 8/12/83

Prepared By B. R. Patel | Date 8/12/83

Reviewed By P. Lessor | Date 11/30/83

PLANT I. D. 1F046D

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Lear DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F054A	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/177'/203	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	3.45×10^5*	70 & 71	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Normal and Accident Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lee Date 11/20/83

PLANT I. D. 1F054A

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket		S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Renton DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F054B	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/177'/204	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	3.45×10^5*	70 & 71	5.09×10^3 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Normal and Accident Gamma
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Senn	Date	11/30/83		

PLANT I. D. 1F054B

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sepra DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1FG78	Description	Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/201'/103	M.R./M.R. Item #	P-102B/12.3
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102B-10-6	P.O. #	P-102B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.45×10^7 *	70 & 71	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Normal and Accident Gamma
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Lewin	Date	11/30/83		

PLANT I. D. 1F078

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	S. S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lew DATE (11/20/83)

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1F078 DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	39	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lean DATE 11/30/83

FOREIGN PRINT # 8031-P-102B-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. 1F078

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	39-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/30/83

FOREIGN PRINT # 8031-P-1028-10-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D.	1F089A	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/283'/506	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6*	70 & 71	8.78×10^2 (Gamma)	1	6.63×10^4 (Gamma) 1.38×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lee Date 11/30/83

PLANT I. D. 1F089A

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lester DATE 11/20/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F089B	Description	, Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	12/283'/506	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	$6.47X10^6$*	70 & 71	$8.78x10^2$ (Gamma)	1	$3.95x10^6$ (Gamma) $1.38x10^6$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Deits Date 11/30/83

PLANT I. D. 1F089B

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Serra DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F089C	Description	, Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	11/283'/510	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	$6.47X10^6$*	70 & 71	$1.26x10^6$ (Gamma)	1	$4.15x10^6$ (Gamma) $1.38x10^6$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Accident and Normal Gamma
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Lee	Date	11/20/83		

PLANT I. D. 1F089C

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepson DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F089D	Description	, Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/283'/510	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	$6.47X10^6$*	70 & 71	$1.26x10^6$(Gamma)	1	$4.15x10^6$(Gamma) $1.38x10^6$(Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	*Accident and Normal Gamma
Revision #	0	Date	8/12/83		
Prepared By	B. R. Patel	Date	8/12/83		
Reviewed By	D. Sexton	Date	11/30/83		

PLANT I. D. 1F089D

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Leon DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F090A	Description	, Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	15/283'/506	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	$6.47X10^{6}$*	70 & 71	$8.78x10^{2}$ (Gamma)	1	$6.63x10^{4}$ (Gamma) $1.38x10^{4}$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lum Date 11/30/83

PLANT I. D. 1F090A

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lewis DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F090B	Description	, Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	12/283'/506	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	$6.47X10^6$*	70 & 71	$8.78x10^2$ (Gamma)	1	$3.95x10^6$ (Gamma) $1.38x10^6$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Letts Date 10/20/83

PLANT I. D. 1F090B

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Serra DATE 11/16/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F090C	Description	, Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	11/283'/510	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	$6.47X10^6$*	70 & 71	$1.26x10^6$ (Gamma)	1	$4.15x10^6$ (Gamma) $1.38x10^6$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lem Date 11/30/83

PLANT I. D. 1F090C

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/20/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F090D	Description	, Check Valve	Equip. Manuf.	Velan
System/CCP	Residual Heat Removal/023	Area/Elev./Rm. #	16/283'/506	M.R./M.R. Item #	P-102C/12.7
Ref. Dwg. #	P&ID M-51 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	$6.47X10^6$*	70 & 71	$8.78x10^2$ (Gamma)	1	$3.95x10^6$ (Gamma) $1.38x10^6$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident and Normal Gamma

Revision # 0 Date 8/12/83

Prepared By B. R. Patel Date 8/12/83

Reviewed By D. Lerm Date 11/30/83

PLANT I. D. 1F090D

DESCRIPTION Check Valve

SYSTEM/CCP Residual Heat Removal/023

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lem DATE 11/20/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-52-108	Description	Air Op. Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Core Spray/024	Area/Elev./Rm. #	12/283'/523	M.R./M.R. Item #	P-107A/14.1
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-107A	P.O. #	P-107A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	120	1
Pressure (PSIG)	1250	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.24×10^7 *	70	3.51×10^4 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	48	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Orchan	Date	11/29/83		

PLANT I. D. HV-52-108

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18A	Stainless steel and asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-P-107A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-108

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Indicator)	16 B	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-107A-19-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-108

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16	Asbestos (John Crane 187I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leeson DATE 11/28/83

FOREIGN PRINT # 8031-P-107A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-108

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-107A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-52-1F001A	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/177'/110	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-M-1-E21-F001-C-4.1A	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	100	3	$-\frac{1}{4}$"w.g.	1	Atmosphere	1
Radiation (Rads)	1.36×10^7 *	70	8.78×10^2	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Archa	Date	11/29/83		

PLANT I. D. HV-52-1F001A

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	316.S.S and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY B. R. Patel DATE 11/18/83

REVIEWED BY Y. Orchai DATE 11/29/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-1F001A

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	20-2	Asbestos (John Crane 187 I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY B. R. Patel DATE 11/18/83

REVIEWED BY Y. Orchai DATE 11/29/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F001A

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	20	Asbestos (John Crane 187 I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY B. R. Patel DATE 11/18/83

REVIEWED BY V. Ochai DATE 11/29/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-52-1F001B | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Core Spray/024 | Area/Elev./Rm. # 12/177'/117 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-1-E21-F001-C-4.1A | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	100	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.36×10^7 *	70	8.78×10^2	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments *Accident, Gamma

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Orchai | Date 4/30/83

PLANT I. D. HV-52-1F001B

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	316.S.S and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY B. R. Patel DATE 11/18/83

REVIEWED BY V. Orhai DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-1F001B

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower [illegible]ing	20-2	Asbestos (John Crane 187 I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A [See comments]	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Pichai DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F001B

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	20	Asbestos (John Crane 187 I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Pitchai DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.iA

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-52-1F001C | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Core Spray/024 | Area/Elev./Rm. # 11/177'/113 | M.R./M.R. Item # M001/

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-1-E21-F001-C-4.1A | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	100	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.36×10^7 *	70	8.78×10^2	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments * Accident, Gamma

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Orchai | Date 11/30/83

PLANT I. D. HV-52-1F001C

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	316.S.S and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^6$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Orchai DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-1F001C

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	20-2	Asbestos (John Crane 187 I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Pichai DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F001C

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	20	Asbestos (John Crane 187 I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Orchard DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder ~~prior to reaching specified material~~ capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-52-1F001D | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Core Spray/024 | Area/Elev./Rm. # 12/177'/114 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-1-E21-F001-C-4.1A | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	100	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.36×10^7 *	70	8.78×10^2	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments * Accident, Gamma

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Pirhai | Date 11/30/83

PLANT I. D. HV-52-1F001D

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	316.S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Archai DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-1F001D

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	20-2	Asbestos (John Crane 187 I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Orthai DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F001D

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	20	Asbestos (John Crane 187 I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Chetwani DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F001-C-4.1A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-52-1F004A	Description	Motor Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/283'/523	M.R./M.R. Item #	P-104B/4.1
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-104B-38-9	P.O. #	P-104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	120	1
Pressure (PSIG)	1130	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	2.98×10^5 *	70	3.5×10^4 (Gamma)	1	7.10×10^5 (Gamma) 6.71×10^5 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	45	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Pitchai	Date	11/30/83		

PLANT I. D. HV-52-1F004A

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	13	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Dean DATE 11/28/83

FOREIGN PRINT # 8031-P-104B-38-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-52-1F004B	Description	Motor Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Core Spray/024	Area/Elev./Rm. #	12/283'/523	M.R./M.R. Item #	P-104B/4.1
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-104B-38-9	P.O. #	P-104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	120	1
Pressure (PSIG)	1130	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	2.98×10^5 *	70	3.51×10^4 (Gamma)	1	7.10×10^5 (Gamma) 6.71×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	45	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orzhai Date 11/30/83

PLANT I. D. HV-52-1F004B

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	13	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lum DATE 11/28/83

FOREIGN PRINT # 8031-P-104B-38-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-52-1F005		Description Motor Op. Gate Valve		Equip. Manuf. Anchor/Darling	
System/CCP Core Spray/024		Area/Elev./Rm. # 11/283'/518		M.R./M.R. Item # M-001/	
Ref. Dwg. # P&ID M-52 Rev. 17		Foreign Print # 8031-M-1-E21-F005B-1.1		P.O. # M-001	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	311	1
Pressure (PSIG)	1250	3	-¼" w.g.	1	9.9	1
Radiation (Rads)	1.24×10^7 *	70	1.35×10^6	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orlwai Date 11/30/83

Comments Main Steam Line HELB Accident Ambient Conditions

* Accident, Gamma

PLANT I. D. HV-52-1F005

DESCRIPTION MOTOR OPERATED GATE VALVE

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	316 S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	None See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F005B-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-1F005

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	20-2	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F005B-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F005

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	20	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lepo DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F005B-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-52-1F006A	Description	Air Op. Check Valve	Equip. Manuf.	Atwood and Morrill
System/CCP	Core Spray/024	Area/Elev./Rm. #	12/286'/Z-2	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-M-E21-F006-B-2.3	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	330	1
Pressure (PSIG)	1250	3	.75	1	44.0	1
Radiation (Rads)	6.22×10^7*	70 & 71	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	Valve subject to chemical spray.
Revision #	0	Date	8/11/83		*Normal and Accident Gamma.
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Orthwein	Date	11/30/83		

PLANT I. D. HV-52-1F006A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F006-B-2.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation).

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. HV-52-1F006A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F006-B-2.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F006A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spacer	316	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lem DATE 11/22/83

FOREIGN PRINT # 8031-M-1-E21-F006-B-2.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation).

NON-METALLIC PART EQ STATUS Acceptable.

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. HV-52-1F006A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac	310	Viton	TEMPERATURE (°F)	--	--	Loss of air actuator by non-metallic part failure will not affect any safety function of the associated check valve.
Uneepac Ring	311&312	Viton	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lum DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F006-B-2.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation).

NON-METALLIC PART EQ STATUS Acceptable (See Rationale).

COMMENTS

Plant I.D. HV-52-1F006B | Description Air Op. Check Valve | Equip. Manuf. Atwood and Morrill

System/CCP Core Spray/024 | Area/Elev./Rm. # 11/286'/Z-2 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-E21-F006-B-2.3 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	330	1
Pressure (PSIG)	1250	3	.75	1	44.0	1
Radiation (Rads)	6.22×10^7*	70 & 71	1.8×10^7 (Gamma) 1.1×10^7 (Neutron)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Pichai | Date 11/30/83

Comments Valve subject to chemical spray

*Normal and Accident Gamma.

PLANT I. D. HV-52-1F006B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lyn DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F006-B-2.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable.

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. HV-52-1F006B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F006-B-2.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable.

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F006B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spacer	316	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lemm DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F006-B-2.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation).

NON-METALLIC PART EQ STATUS Acceptable.

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. HV-52-1F006B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac	310	Viton	TEMPERATURE (°F)	--	--	Loss of air actuator by non-methallic part failure will not affect any safety function of the associated check valve.
Uneepac Ring	311&312	Viton	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lewis DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-F006-B-2.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation).

NON-METALLIC PART EQ STATUS Acceptable (See Rationale).

COMMENTS

Plant I.D.	HV-52-1F015A	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/217'/304	M.R./M.R. Item #	P-103/1.3
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-103-7-6	P.O. #	P-103

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	104	1	120	1
Pressure (PSIG)	500	3	$-\frac{1}{4}$" w.g.	1	Atmosphere	1
Radiation (Rads)	2.98×10^5 *	70	8.78×10^2 (Gamma)	1	4.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	44	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orlowski Date 11/30/83

PLANT I. D. HV-52-1F015A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-103-7-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceeds service condition requirements

PLANT I. D. HV-52-1F015A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-103-7-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F015A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-103-7-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-52-1F015B	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Core Spray/024	Area/Elev./Rm. #	12/217'/304	M.R./M.R. Item #	P-103/1.3
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-103-7-ō	P.O. #	P-103

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	104	1	120	1
Pressure (PSIG)	500	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	2.98×10^5 *	70	8.78×10^2 (Gamma)	1	9.47×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	44	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Pitchai	Date	11/30/83		

PLANT I. D. HV-52-1F015B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leyn DATE 11/28/83

FOREIGN PRINT # 8031-P-103-7-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-1F015B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leman DATE 11/28/83

FOREIGN PRINT # 8031-P-103-7-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F015B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leyn DATE 11/28/83

FOREIGN PRINT # 8031-P-103-7-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-52-1F031A	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/201'/200	M.R./M.R. Item #	P-102A/18.1
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-102A-76-3	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	104	1	120	1
Pressure (PSIG)	500	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^5 *	70	8.78×10^2 (Gamma)	1	3.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Pothai Date 11/30/83

PLANT I. D. HV-52-1F031A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Ross DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-76-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-1F031A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-76-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F031A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lehman DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-76-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-52-1F031B | Description Motor Op. Globe Valve | Equip. Manuf. Anchor/Darling

System/CCP Core Spray/024 | Area/Elev./Rm. # 12/201'/207 | M.R./M.R. Item # P-102A/18.1

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-P-102A-76-3 | P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	104	1	120	1
Pressure (PSIG)	500	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^5 *	70	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status Acceptable (See Form #2) | Comments * Accident, Gamma

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Pichai | Date 11/30/83

PLANT I. D. HV-52-1F031B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-76-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements

PLANT I. D. HV-52-1F031B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lenn DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-76-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F031B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Jenn DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-76-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-52-1F037 Description Motor Op. Gate Valve Equip. Manuf. Anchor/Darling

System/CCP Core Spray/024 Area/Elev./Rm. # 12/283'/503 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-52 Rev. 17 Foreign Print # 8031-M-1-E21-F005-B-1.1 P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	110	1	120	1
Pressure (PSIG)	1150	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.24×10^7 *	70	1.18×10^6	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orthai Date 11/30/83

PLANT I. D. HV-52-1F037

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	3	316.S.S and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED P V. Orthan DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F005B-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

PLANT I. D. HV-52-1F037

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	20-2	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Archai DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F005B-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F037

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	20	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY V. Pichai DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E21-F005B-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-52-1F039A	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/286'/Z-2	M.R./M.R. Item #	P-114A/8.9
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-114A-46-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	5.21×10^7*	70 & 71	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status	Acceptable (See Form #2)	Comments	Valve subject to chemical spray
Revision #	1	Date	12/6/83
Prepared By	D. Sexton	Date	12/6/83
Reviewed By	V. Orthai	Date	12/6/83

*Normal and Accident Gamma.

PLANT I. D. HV-52-1F039A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	--	--	Part removed prior to valve installation, serves no safety function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY P. Lem DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-52-1F039A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specifed material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F039A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lehn DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs, #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-52-1F039B	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Core Spray/024	Area/Elev./Rm. #	12/286'/Z-2	M.R./M.R. Item #	P-114A/8.9
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-114A-46-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	5.21×10^7*	70 & 71	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^2 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 Hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray

Revision # 1 Date 12/5/83

Prepared By D. Sexton Date 12/6/83

*Normal and Accident Gamma.

Reviewed By V. Orchard Date 12/6/83

PLANT I. D. HV-52-1F039B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	--	--	Part removed prior to valve installation, serves no safety function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lyon DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-52-1F039B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-1F039B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-		
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lee DATE 12/6/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D. PSV-52-1F012A | Description Pressure Relief Valve | Equip. Manuf. Lonergan

System/CCP Core Spray/024 | Area/Elev./Rm. # 11/201'/113 | M.R./M.R. Item # M-204B/10

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-204BA-23(1).15 | P.O. # M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	39	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orchai Date 11/30/83

PLANT I. D. PSV-52-1F012A

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	24	Graphited Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Shaw DATE 11/22/83

FOREIGN PRINT # 8031-M-204BA-23(1)-16

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D.	PSV-52-1F012B	Description	Pressure Relief Valve	Equip. Manuf.	Lonergan
System/CCP	Core Spray/024	Area/Elev./Rm. #	12/201'/114	M.R./M.R. Item #	M-204B/10
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-M-204BA-23(1).16	P.O. #	M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	$-\frac{1}{4}$" w.g.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	39	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident, Gamma

Revision #: 0 Date: 8/11/83

Prepared By: D. Sexton Date: 8/11/83

Reviewed By: V. Orthai Date: 11/30/83

PLANT I. D. PSV-52-1F012B

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	24	Graphited Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-204BA-23(1)-16

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D. PSV-52-1F032A | Description Pressure Relief Valve | Equip. Manuf. Lonergan

System/CCP Core Spray/024 | Area/Elev./Rm. # 11/177'/110 | M.R./M.R. Item # M-204B/20

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-204BA-23(1).16 | P.O. # M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	100	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	39	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments * Accident, Gamma

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Orthai | Date 11/30/83

PLANT I. D. PSV-52-1F032A

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	24	Graphited Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D Lean DATE 11/28/83

FOREIGN PRINT # 8031-M-204BA-23(1)-16

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D. PSV-52-1F032B | Description Pressure Relief Valve | Equip. Manuf. Lonergan

System/CCP Core Spray/024 | Area/Elev./Rm. # 12/177'/117 | M.R./M.R. Item # M-204B/20

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-204BA-23(1).16 | P.O. # M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	100	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	39	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments * Accident, Gamma

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Pitchai | Date 11/30/83

PLANT I. D. PSV-52-1F032B

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	24	Graphited Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-204BA-23(1)-16

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D. PSV-52-1F032C	Description Pressure Relief Valve		Equip. Manuf. Lonergan		
System/CCP Core Spray/024	Area/Elev./Rm. # 11/177'/113		M.R./M.R. Item # M-204B/20		
Ref. Dwg. # P&ID M-52 Rev. 17	Foreign Print # 8031-M-204BA-23(1).16		P.O. # M-204B		

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	100	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70		1		1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	39	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Parthasarathi Date 11/30/83

PLANT I. D. PSV-52-1F032C

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	24	Graphited Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-204BA-23(1)-16

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D. PSV-52-1F032D | Description Pressure Relief Valve | Equip. Manuf. Lonergan

System/CCP Core Spray/024 | Area/Elev./Rm. # 12/177'/114 | M.R./M.R. Item # M-204B/20

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-204BA-23(1).16 | P.O. # M-204B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	100	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	39	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments * Accident, Gamma

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Orthai | Date 11/30/83

PLANT I. D. PSV-52-1F032D

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	24	Graphited Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lopton DATE 11/28/83

FOREIGN PRINT # 8031-M-204BA-23(1)-16

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D. XV-52-1F018A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Core Spray/024 | Area/Elev./Rm. # 11/283'/ **(See Comments) | M.R./M.R. Item # M-231/30.1

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orlowski Date 11/30/83

Comments *Normal and Accident Gamma

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-52-1F018A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no mechanical safety function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. [illegible] DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation.)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Form #2 EQRR # 24 SHEET 2 OF 5

PLANT I. D. XV-52-1F018A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lewa DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-52-1F018A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-52-1F018A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leta DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D. XV-52-1F018B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Core Spray/024 | Area/Elev./Rm. # 12/283'/ **(See Comments) | M.R./M.R. Item # M-231/30.1

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7*	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	40	130 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Orchard | Date 11/30/83

Comments *Normal and Accident Gamma.

**Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-52-1F018B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket beyween the proximity (position) switch and the valve body and serves no mechanical safety function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lemon DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation.)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-52-1F018B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Hess DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-52-1F018B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lenn DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-52-1F018B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leeu DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D. 1045A | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Core Spray/024 | Area/Elev./Rm. # 11/179'/110 | M.R./M.R. Item # P-114A/6.3

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-P -114A-2-8 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic parts) | Comments * Accident, Gamma

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Cichocki | Date 11/30/83

Plant I.D. 1045B | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Core Spray/024 | Area/Elev./Rm. # 12/179'/117 | M.R./M.R. Item # P-114A/6.3

Ref. Dwg. # P&ID M-52 Rev. 17 | Foreign Print # 8031-P-114A-2-8 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^8 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic parts) | Comments * Accident, Gamma

Revision # 0 | Date 8/11/83

Prepared By D. Sexton | Date 8/11/83

Reviewed By V. Pichai | Date 11/30/83

Plant I.D. 1045B	Description Check Valve	Equip. Manuf. Rockwell
System/CCP Core Spray/024	Area/Elev./Rm. # 12/179'/117	M.R./M.R. Item # P-114A/6.3
Ref. Dwg. # P&ID M-52 Rev. 17	Foreign Print # 8031-P-114A-2-8	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^8 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Pichai Date 11/30/83

Form #1 EQRR # 27

Plant I.D.	1046A	Description	Check Valve	Equip. Manuf.	Rockwell
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/179'/110	M.R./M.R. Item #	P-114A/6.3
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-114A-2-8	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (No non-metallic parts)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. P. Chai	Date	11/30/83		

Plant I.D.	1046B	Description	Check Valve	Equip. Manuf.	Rockwell
System/CCP	Core Spray/024	Area/Elev./Rm. #	12/179'/117	M.R./M.R. Item #	P-114A/6.3
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-114A-2-8	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (No non-metallic parts)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Pichai	Date	11/30/83		

Plant I.D.	1AP206	Description	Pump	Equip. Manuf.	Ingersoll Rand
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/177'/110	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-E21-C001-C	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.36×10^7 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^5 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Prachai	Date	11/30/83		

PLANT I. D. 1AP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (Quantity 7 required)	429	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Sun DATE 11/29/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. 1AP206

DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	363	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Dean DATE 11/29/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. 1AP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	456A	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leon DATE 11/29/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above. However, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 1AP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	456B	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D Jeno DATE 12/6/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above; however, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 1AP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring--Stuffing Box	456C	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lewis DATE 12/6/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above; however, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

Plant I.D. 1BP206	Description Pump	Equip. Manuf. Ingersoll Rand
System/CCP Core Spray/024	Area/Elev./Rm. # 12/177'/117	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-52 Rev. 17	Foreign Print # 8031-E21-C001-C	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.36×10^7 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Pichai Date 11/30/83

PLANT I. D. 1BP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (Quantity 7 required)	429	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. 1BP206

DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	363	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. 1BP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	456A	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above. However, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 1BP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	456B	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lyon DATE 12/6/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above; however, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 1BP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring--Stuffing Box	456C	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lem DATE 12/6/83

FOREIGN PRINT # 8031-M-J-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above; however, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	ICP206	Description	Pump	Equip. Manuf.	Ingersoll Rand
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/177'/113	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-E21-C001-C	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	1.36×10^7 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orchon Date 11/30/83

PLANT I. D. 1CP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (Quantity 7 required)	429	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Hepa DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. 1CP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	363	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. 1CP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	456A	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above. However, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 1CP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	456B	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Sellers DATE 12/6/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above; however, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 1CP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring--Stuffing Box	456C	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Chan DATE 12/6/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above; however, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

Plant I.D. 1DP206	Description Pump	Equip. Manuf. Ingersoll Rand
System/CCP Core Spray/024	Area/Elev./Rm. # 12/177'/114	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-52 Rev. 17	Foreign Print # 8031-E21-C001-C	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	$-\frac{1}{4}$" w.g.	1	Atmosphere	1
Radiation (Rads)	1.36×10^7 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orlowski Date 11/30/83

PLANT I. D. 1DP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (Quantity 7 required)	429	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-C00 -K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. 1DP206

DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	363	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepre DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed service condition requirements.

PLANT I. D. 1DP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	456A	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above. However, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 1DP206

DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024

REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	456B	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY P. Lem DATE 12/6/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above; however, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. 1DP206 DESCRIPTION Core Spray Pump

SYSTEM/CCP Core Spray/024 REQUIRED CONDITIONS 1 & 2

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring-- Stuffing Box	456C	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lerm DATE 12/6/83

FOREIGN PRINT # 8031-M-1-E21-C001-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable. Process radiation condition on Form #1 exceeds material capability specified above; however, "O"-Ring will not be subjected to the dose specified on Form #1.

COMMENTS Material degradation time, based on temperature aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	1F003A	Description	Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/181'/110	M.R./M.R. Item #	P-102A/12.9
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-102A-132-3	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.24×10^7 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orchard Date 11/30/83

PLANT I. D. 1F003A

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S/Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
Gasket (Stuffing Box)	18A	S.S/Asbestos (Flexitallic)	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D Senn DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-132-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. 1F003A

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leyn DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-132-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. 1F003B	Description Check Valve	Equip. Manuf. Anchor/Darling
System/CCP Core Spray/024	Area/Elev./Rm. # 12/179'/117	M.R./M.R. Item # P-102A/12.9
Ref. Dwg. # P&ID M-52 Rev. 17	Foreign Print # 8031-P-102A-132-3	P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.24×10^7 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Chichani Date

PLANT I. D. 1F003B

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S/ASbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket (Stuffing Box)	18A	S. S/Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leto DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-132-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. 1F003B

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY P. Lem DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-132-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	1FC03C	Description	Check Valve	Equip. Manuf.	Anchor/Darling
System/CCF	Core Spray/024	Area/Elev./Rm. #	11/179'/113	M.R./M.R. Item #	P-102A/12.9
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-102A-132-3	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.24×10^7 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Archuai Date 11/30/83

PLANT I. D. 1F003C

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S/Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket (Stuffing Box)	18A	S.S/ASbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lew DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-132-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. 1F003C

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-132-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. 1F003D	Description Check Valve	Equip. Manuf. Anchor/Darling
System/CCP Core Spray/024	Area/Elev./Rm. # 12/179'/114	M.R./M.R. Item # P-102A/12.9
Ref. Dwg. # P&ID M-52 Rev. 17	Foreign Print # 8031-P-102A-132-3	P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.24×10^7 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Pichai Date 11/30/83

PLANT I. D. 1F003D

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S/Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket (Stuffing Box)	18A	S.S/Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-132-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. 1F003D

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lenon DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-132-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	1F029A	Description	Check Valve	Equip. Manuf	Rockwell
System/CCP	Core Spray/024	Area/Elev./Rm. #	/296'/518	M.R./M.R. Item #	P-114A/4.1
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-114A-5-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1130	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (No non-metallic parts)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Richai	Date	11/30/83		

Plant I.D. 1F029B	Description Check Valve	Equip. Manuf. Rockwell
System/CCP Core Spray/024	Area/Elev./Rm. # /298'/518	M.R./M.R. Item # P-114A/4.1
Ref. Dwg. # P&ID M-52 Rev. 17	Foreign Print # 8031-P-114A-5-10	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1130	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: * Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Pichai Date 11/30/83

Plant I.D. 1E030A	Description Check Valve	Equip. Manuf. Rockwell
System/CCP Core Spray/024	Area/Elev./Rm. # /296'/518	M.R./M.R. Item # P-114A/4.1
Ref. Dwg. # P&ID M-52 Rev. 17	Foreign Print # 8031-P-114A-5-10	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1130	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	$6x27 \times 10^6$ *	70	$1.35x10^6$ (Gamma)	1	$5.16x10^6$ (Gamma) $1.38x10^6$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status	Acceptable (No non-metallic parts)	Comments	*Accident, Gamma
Revision # 0	Date 8/11/83		
Prepared By D. Sexton	Date 8/11/83		
Reviewed By V. Pichai	Date 11/30/83		

Form #1 EQRR # 40 Sheet 1 of 1

Plant I.D.	1F030B	Description	Check Valve	Equip. Manuf.	Rockwell
System/CCP	Core Spray/024	Area/Elev./Rm. #	/298'/518	M.R./M.R. Item #	P-114A/4.1
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-114A-5-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1130	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Comments: *Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Pichai Date 11/30/83

Plant I.D. 1F036A	Description Check Valve	Equip. Manuf. Velan
System/CCP Core Spray/024	Area/Elev./Rm. # 11/177'/110	M.R./M.R. Item # P-102C/12.5
Ref. Dwg. # P&ID M-52 Rev. 17	Foreign Print # 8031-P-102C-3-14	P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)	Comments	* Accident, Gamma
Revision #	0	Date	8/11/83
Prepared By	D. Sexton	Date	8/11/83
Reviewed By	V. Orthai	Date	11/30/83

PLANT I. D. 1F036A

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D.	1F036B	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Core Spray/024	Area/Elev./Rm. #	12/177'/117	M.R./M.R. Item #	P-102C/12.5
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Prehai	Date	11/30/83		

PLANT I. D. 1F036B

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required condition

Plant I.D.	1F036C	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Core Spray/024	Area/Elev./Rm. #	11/177'/113	M.R./M.R. Item #	P-102C/12.5
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *Accident, Gamma

Revision # 0 Date 8/11/83

Prepared By D. Sexton Date 8/11/83

Reviewed By V. Orchard Date 11/30/83

PLANT I. D. 1F036C

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS

COMMENTS Material capabilities far exceed required conditions

Plant I.D.	1F036D	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Core Spray/024	Area/Elev./Rm. #	12/177'/114	M.R./M.R. Item #	P-102C/12.5
Ref. Dwg. #	P&ID M-52 Rev.17	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 *	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Accident, Gamma
Revision #	0	Date	8/11/83		
Prepared By	D. Sexton	Date	8/11/83		
Reviewed By	V. Orchard	Date	11/30/83		

PLANT I. D. 1F036D

DESCRIPTION Check Valve

SYSTEM/CCP Core Spray / 024

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral wound Gasket	7	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	--	

REVISION # 0 DATE 11/18/83

PREPARED BY V. Pichai DATE 11/18/83

REVIEWED BY D. Lew DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D. HV-41-1F011A | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/286'/Z-2 | M.R./M.R. Item # P-105A/2.1

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-105A-1-8 | P.O. # P-105A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	150	1	340	1
Pressure (PSIG)	2132	3	.75	1	44	1
Radiation (Rads)	3.91×10^7 (Accident & Normal Gamma)	70 & 80	1.1×10^7 (Neutrons) 1.8×10^7 (Gamma	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	46	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By [signature] | Date 12/9/83

PLANT I. D. HV-41-1F011A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-105A-1-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

PLANT I. D. HV-41-1F011A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY D.A. Paty DATE 12/1/83

FOREIGN PRINT # 8031-P-105A-1-8

RECOMMENDED REPLACEMENT SCHEDULE (Based on EQ Evaluation) None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

Form #2 EQRR # 1 SHEET 3 OF 3

Plant I.D. HV-41-1F011B | Description Motor Op. Gate Valve | Equip. Manuf. Anchor/Darling

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/286'/Z-2 | M.R./M.R. Item # P-105A/2.1

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-105A-1-8 | P.O. # P-105A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	150	1	340	1
Pressure (PSIG)	2132	3	.75	1	44	1
Radiation (Rads)	3.91×10^7 (Accident and Normal Gamma)	70 & 80	1.1×10^7 (Neutrons) 1.8×10^7 (Gamma	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	46	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By [signature] | Date 12/1/83

PLANT I. D. HV-41-1F011B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-105A-1-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

PLANT I. D. HV-41-1F011B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B&R Patty DATE 12/1/83

FOREIGN PRINT # 8031-P-105A-1-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

Plant I.D. HV-41-1F016 Description Motor Op. Gate Valve Equip. Manuf. Velan

System/CCP Nuclear Boiler/026 Area/Elev./Rm. # 11C/253'/Z-5 M.R./M.R. Item # P-104B/1.1

Ref. Dwg. # P&ID M-41 Rev. 18 Foreign Print # 8031-P-104B-1-13 P.O. # P-104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	1.16×10^9 * 2.57×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	45	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Orhai Date 12/9/83

Comments Valve is subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F016 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Nuclear Boiler/026 REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORN SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	17	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.L. Raty DATE 12/1/83

FOREIGN PRINT # 8031-P-105A-1-B

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

Plant I.D. HV-41-1F019 Description Motor Op. Gate Valve Equip. Manuf. Velan

System/CCP Nuclear Boiler/026 Area/Elev./Rm. # 11/253'/407 M.R./M.R. Item # P-104/1.3

Ref. Dwg. # P&ID M-41 Rev. 18 Foreign Print # 8031-P-104B-158-2 P.O. # P-104

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	311	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	9.9	1
Radiation (Rads)	1.1×10^9 * 1.24×10^7 **	71 & 80	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	45	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By R.R. Paty Date 12/9/83

Comments HELB Accident Ambient Conditions

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F019

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	17	Braided Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	-	

REVISION # 0 DATE 12/2/83

PREPARED BY V. Pichai DATE 12/2/83

REVIEWED BY D. Lyon DATE 12/9/83

FOREIGN PRINT # 8031-P-104B-158-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability exceeds required conditions, Deterioration of BUNA binder prior to reaching specified material capability will not cause sealing capability deterioration (Ref. 81)

Plant I.D. HV-41-1F022A | Description Main Steam Isolation Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/273'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-B21-F022-C-9.2A | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	1.16×10^9 * 2.44×10^7 **	70 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	5.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Rohan | Date 12/9/83

Comments Valve subject to chemical spray.

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F022A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	38	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	—	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F022A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nyclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	11	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R82Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-13.A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	14	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P2Qualty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-7.2BC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9, 12-A, 12-F	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY P&R Paty DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based or aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9-A	BUNA	TEMPERATURE (°F)	See aging analysis	74	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	5×10^6	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @330°F 1 hr. @212°F 2-1/2 yrs @ 150°F	74	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE Replace every 2-1/2 years

NON-METALLIC PART EQ STATUS Acceptable

(Based on replacement schedule)

COMMENTS The packing will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. HV-41-1F022A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	39	Graphite Asbestos with Zinc	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [illegible] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F022A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	10, 12, 16, 21, 27	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
O-Ring	8, 15, 25	Viton	PRESSURE (PSIG)	N/A	27	
Washer	7, 9, 17	Viton	RADIATION (Rads)	2.3×10^7	73	
Rod Wiper	5	Viton	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-11.1, Sheet 2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Plant life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	33-A, 33-B, 60 60-A, 60-B, 61	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Seal Backup	61	Viton	RADIATION (Rads)	2.3×10^7	73	
O-Ring	9-B	Viton	HUMIDITY (%)	N/A	27	
Piston Backup	72	Viton				
Rod Wiper	57	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY [signature] DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

Plant I.D. HV-41-1F022B | Description Main Steam Isolation Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/273'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-B21-F022-C-9.2A | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	1.16×10^9 * 2.44×10^7 **	70 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray.

Revision # 1 Date 12/9/83

* Accident Beta

Prepared By David Sexton Date 12/9/83

** Accident and Normal Gamma

Reviewed By V. Prelvan Date 12/9/30

Form #1 EQRR # 6 Sheet 1 of 9

PLANT I. D. HV-41-1F022B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	38	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	—	

REVISION 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F022B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nyclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	11	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F02-C-13.A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	14	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Joe Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-7.2BC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9, 12-A, 12-F	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/3/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY Safety DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9-A	BUNA	TEMPERATURE (°F)	See aging analysis	74	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	5×10^6	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @330°F 1 hr. @212°F 2-1/2 yrs. @ 150°F	74	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.R. Roty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE Replace every 2-1/2 years

NON-METALLIC PART EQ STATUS Acceptable

(Based on replacement schedule)

COMMENTS The packing will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. HV-41-1F022B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	39	Graphite Asbestos with Zinc	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Patel DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F022B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/020

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	10, 12, 16, 21, 27	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
O-Ring	8, 15, 25	Viton	RADIATION (Rads)	2.3×10^7	73	
Washer	7, 9, 17	Viton	HUMIDITY (%)	N/A	27	
Rod Wiper	5	Viton	AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-11.1, Sheet 2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	33-A, 33-B, 60, 60-A, 60-B, 61	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Seal Backup	61	Viton	RADIATION (Rads)	2.3×10^{7}	73	
O-Ring	9-B	Viton	HUMIDITY (%)	N/A	27	
Piston Backup	72	Viton				
Rod Wiper	57	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY R.R. Raty DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

Plant I.D. HV-41-1F022C | Description Main Steam Isolation Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/273'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-B21-F022-C-9.2A | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	1.16×10^9 * 2.44×10^7 **	70 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Arhai | Date 12/9/83

Comments Valve subject to chemical spray.

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F022C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	38	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	—	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F022C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	11	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-13.A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	14	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P2RPaty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-7.2BC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9, 12-A, 12-F	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY Safety DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9-A	BUNA	TEMPERATURE (°F)	See aging analysis	74	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	5×10^6	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @330°F 1 hr. @212°F 2-1/2 yrs @ 150°F	74	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE Replace every 2 -1/2 years

NON-METALLIC PART EQ STATUS Acceptable

(Based on replacement schedule)

COMMENTS The packing will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. HV-41-1F022C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	39	Graphite Asbestos with Zinc	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F022C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	10, 12, 16, 21, 27	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
O-Ring	8, 15, 25	Viton	PRESSURE (PSIG)	N/A	27	
Washer	7, 9, 17	Viton	RADIATION (Rads)	2.3×10^7	73	
Rod Wiper	5	Viton	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-11.1, Sheet 2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	33-A, 33-B, 60 60-A, 60-B, 61	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Seal Backup	61	Viton	RADIATION (Rads)	2.3×10^7	73	
O-Ring	9-B	Viton	HUMIDITY (%)	N/A	27	
Piston Backup	72	Viton				
Rod Wiper	57	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY R.R. Baty DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

Plant I.D. HV-41-1F022D | Description Main Steam Isolation Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/273'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-B21-F022-C-9.2A | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	1.16×10^9 * 2.44×10^7 **	70	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Orlando | Date 12/9/83

Comments Valve subject to chemical spray.

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F022D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	38	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	—	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F022D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	11	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-13.A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	14	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P26 Patey DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-7.2BC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9, 12-A, 12-F	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY B.R. Patty DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9-A	BUNA	TEMPERATURE (°F)	See aging analysis	74	
			PRESSURE (PSIG)	N/A	2	
			RADIATION (Rads)	5×10^6	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @330°F 1 hr. @212°F 2-1/2 yrs. @ 150°F	74	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE Replace every 2-1/2 years

NON-METALLIC PART EQ STATUS Acceptable

(Based on replacement schedule)

COMMENTS The packing will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. HV-41-1F022D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	39	Graphite Asbestos with Zinc	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F022D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	10, 12, 16, 21, 27	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
O-Ring	8, 15, 25	Viton	RADIATION (Rads)	2.3×10^7	73	
Washer	7, 9, 17	Viton	HUMIDITY (%)	N/A	27	
Rod Wiper	5	Viton	AGING ANALYSIS	(See Comments)	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [illegible] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-11.1, Sheet 2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F022D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	33-A, 33-B, 60 60-A, 60-B, 61	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Seal Backup	61	Viton	RADIATION (Rads)	2.3×10^7	73	
O-Ring	9-B	Viton	HUMIDITY (%)	N/A	27	
Piston Backup	72	Viton				
Rod Wiper	57	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY B.R. Baty DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

Plant I.D. HV-41-1F028A	Description Main Steam Isolation Valve	Equip. Manuf. Atwood and Morrill
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 12/253'/518	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-B21-F022-C-9.2A	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	311	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	9.9	1
Radiation (Rads)	1.1×10^9 * 1.11×10^7 **	70 & 80	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Orlon Date 12/9/83

Comments High Energy Line Break Accident Ambient Conditions.

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F028A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	38	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	—	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F028A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	11	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.R. Doty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-13.A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	14	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.R. Raty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-7.2BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9, 12-A, 12-F	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY [signature] DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9-A	BUNA	TEMPERATURE (°F)	See aging analysis	74	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	5×10^6	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	8 yrs. @120°F	74	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE 8 yrs (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS

PLANT I. D. HV-41-1F028A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	39	Graphite Asbestos with Zinc	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P&E Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F028A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	33-A, 33-B, 60 60-A, 60-B, 61	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Seal Backup	61	Viton	RADIATION (Rads)	2.3×10^7	73	
O-Ring	9-B	Viton	HUMIDITY (%)	N/A	27	
Piston Backup	72	Viton				
Rod Wiper	57	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY P.R. Patey DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028A

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	10, 12, 16, 21, 27	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
O-Ring	8, 15, 25	Viton	RADIATION (Rads)	2.3×10^7	73	
Washer	7, 9, 17	Viton	HUMIDITY (%)	N/A	27	
Rod Wiper	5	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-11.1, Sheet 2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

Plant I.D. HV-41-1F028B	Description Main Steam Isolation Valve	Equip. Manuf. Atwood and Morrill
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 12/253'/518	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-B21-F022-C-9.2A	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	311	1
Pressure (PSIG)	1115	3	-1/4" W. G.	1	9.9	1
Radiation (Rads)	1.1×10^9 * 1.11×10^7 **	70 & 80	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status	Acceptable (See Form #2)	Comments	High Energy Line Break Accident
Revision #	1		Ambient Conditions.
Date	12/9/83		* Accident Beta
Prepared By	David Sexton		** Accident and Normal Gamma
Date	12/9/83		
Reviewed By	V. Pichai		
Date	12/9/83		

PLANT I. D. HV-41-1F028B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	38	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	—	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F028B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	11	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.R. Raty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-13.A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	14	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Beaty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-7.2BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9, 12-A, 12-F	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY B.R. Baty DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9-A	BUNA	TEMPERATURE (°F)	See aging analysis	74	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	5×10^6	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	8 yrs. @120°F	74	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE 8 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS

PLANT I. D. HV-41-1F028B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	39	Graphite Asbestos with Zinc	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P2QRty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F028B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	10, 12, 16, 21, 27	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
O-Ring	8, 15, 25	Viton	PRESSURE (PSIG)	N/A	27	
Washer	7, 9, 17	Viton	RADIATION (Rads)	2.3×10^7	73	
Rod Wiper	5	Viton	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

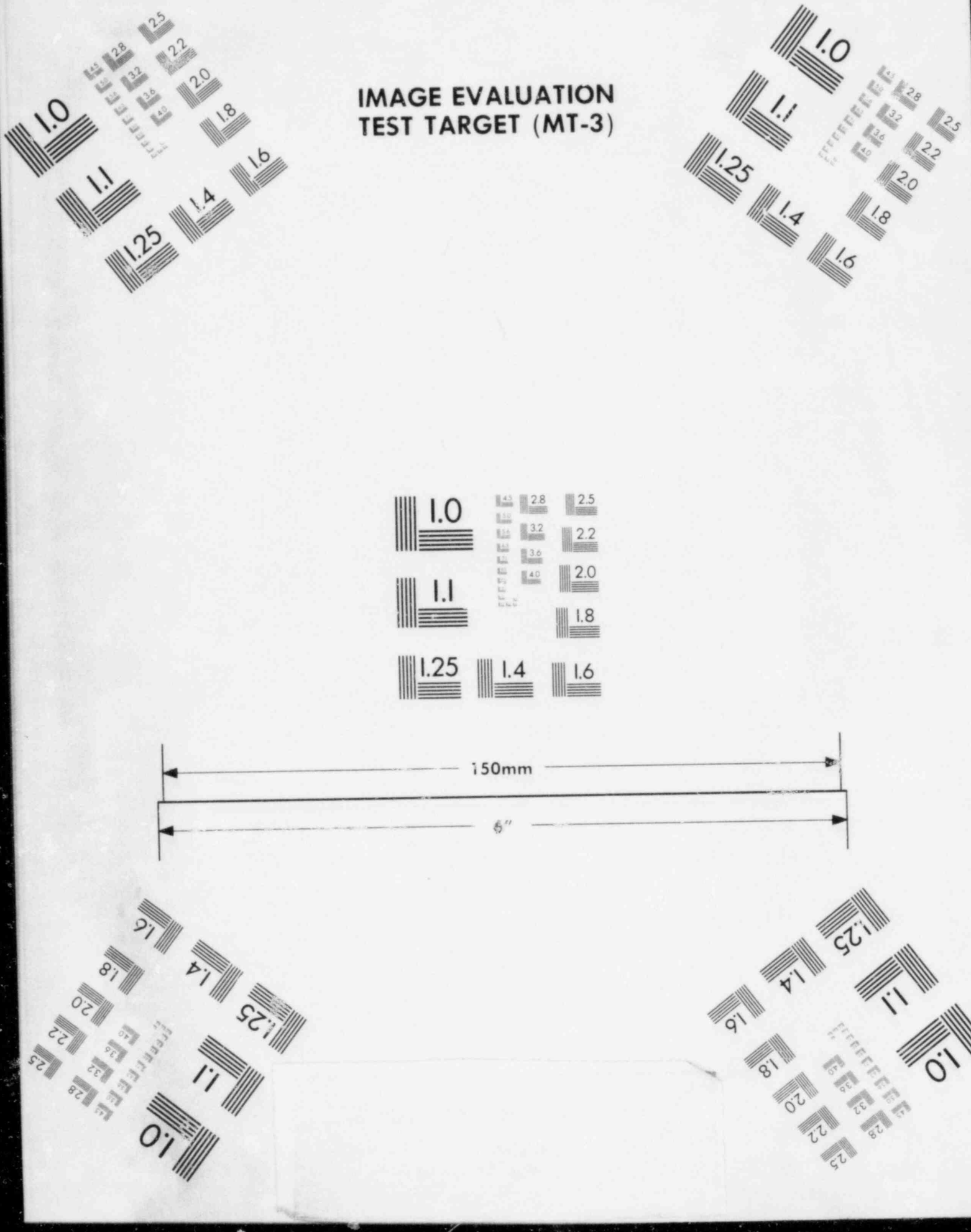
REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-11.1, Sheet 2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.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TEST TARGET (MT-3)
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1.1
1.25
1.4
1.6
1.8
2.0
2.2
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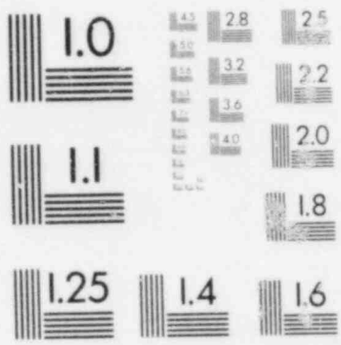
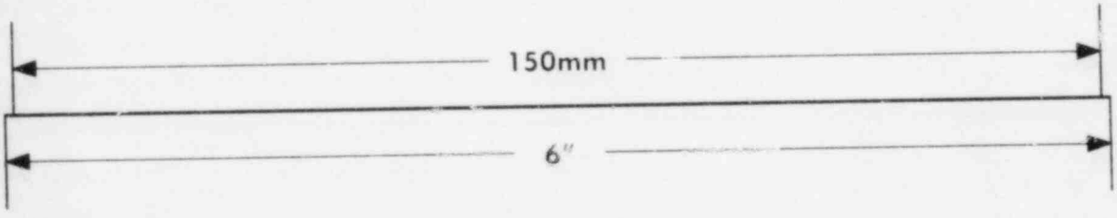
2.8
3.2
3.6
4.0
150mm
6"

IMAGE EVALUATION
TEST TARGET (MT-3)





PLANT I. D. HV-41-1F028B

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	33-A, 33-B, 60 60-A, 60-B, 61	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Seal Backup	61	Viton	RADIATION (Rads)	2.3×10^7	73	
O-Ring	9-B	Viton	HUMIDITY (%)	N/A	27	
Piston Backup	72	Viton				
Rod Wiper	57	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY [signature] DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

Plant I.D. HV-41-1F028C | Description Main Steam Isolation Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/253'/518 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-B21-F022-C-9.2A | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	311	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	9.9	1
Radiation (Rads)	1.1×10^9 * 1.11×10^7 **	70 & 80	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Dehvari Date 12/9/83

Comments High Energy Line Break Accident Ambient Conditions.

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F028C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	38	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	—	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F028C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nyclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	11	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)		27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-13.A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	14	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Patey DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-7.2BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life analysis.

PLANT I. D. HV-41-1F028C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9, 12-A, 12-F	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY [signature] DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9-A	BUNA	TEMPERATURE (°F)	See aging analysis	74	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	5×10^6	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	8 yrs. @120°F	74	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE 8 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS

PLANT I. D. HV-41-1F028C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	39	Graphite Asbestos with Zinc	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.B. Baty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F028C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	10, 12, 16, 21, 27	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
O-Ring	8, 15, 25	Viton	RADIATION (Rads)	2.3×10^7	73	
Washer	7, 9, 17	Viton	HUMIDITY (%)	N/A	27	
Rod Wiper	5	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-11.1, Sheet 2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028C

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	33-A, 33-B, 60 60-A, 60-B, 61	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Seal Backup	61	Viton	RADIATION (Rads)	2.3×10^7	73	
O-Ring	9-B	Viton	HUMIDITY (%)	N/A	27	
Piston Backup	72	Viton				
Rod Wiper	57	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/33

REVIEWED BY [signature] DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

Plant I.D. HV-41-1F028D | Description Main Steam Isolation Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/253'/518 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-B21-F022-C-9.2A | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	311	1
Pressure (PSIG)	1115	3	-1/4" W.G	1	9.9	1
Radiation (Rads)	1.1×10^9 * 1.11×10^7 **	70 & 80	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Orehai | Date 12/9/83

Comments High Energy Line Break Accident Ambient Conditions.

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F028D

DESCRIPTION Main Steam Is tion Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	38	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	—	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Qual aty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on 50 Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F028D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	11	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-13.A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	14	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.S. Raty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-7.2BC

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Plant life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9, 12-A, 12-F	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY Bobaty DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	9-A	BUNA	TEMPERATURE (°F)	See aging analysis	74	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	5×10^6	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	3 yrs. @ 120°F	74	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B&R Party DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE 8 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS

PLANT I. D. HV-41-1F028D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	39	Graphite Asbestos with Zinc	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-9.2A

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F028D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	10, 12, 16, 21, 27	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
O-Ring	8, 15, 25	Viton	RADIATION (Rads)	2.3×10^7	73	
Washer	7, 9, 17	Viton	HUMIDITY (%)	N/A	27	
Rod Wiper	5	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-11.1, Sheet 2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

PLANT I. D. HV-41-1F028D

DESCRIPTION Main Steam Isolation Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	33-A, 33-B, 60 60-A, 60-B, 61	Viton	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Seal Backup	61	Viton	RADIATION (Rads)	2.3×10^7	73	
O-Ring	9-B	Viton	HUMIDITY (%)	N/A	27	
Piston Backup	72	Viton				
Rod Wiper	57	Viton	AGING ANALYSIS	See Comments	86	

REVISION # 1 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY Safety DATE 12/8/83

FOREIGN PRINT # 8031-M-1-B21-F022-C-8.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Part life, based on aging analysis, far exceeds plant life plus end of life accident.

Plant I.D. HV-41-1F032A | Description Motor Op. Check Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/286'/518 | M.R./M.R. Item # P-104A/9.1

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-104A-2-10 | P.O. # P-104A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	120	1	120	1
Pressure (PSIG)	1777	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	7.74×10^6 (Accident and Normal Gamma)	70 & 80	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	44	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By B.R. Patel | Date 12/9/83

PLANT I. D. HV-41-1F032A

DESCRIPTION Motor Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	16	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	-	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lepon DATE 12/9/83

FOREIGN PRINT # 8031-P-104A-2-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F032A

DESCRIPTION Motor Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	30	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	-	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lepa DATE 12/9/83

FOREIGN PRINT # 8031-P-104A-2-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81)

Plant I.D. HV-41-1F032B | Description Motor Op. Check Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/286'/518 | M.R./M.R. Item # P-104A/9.1

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-104A-2-10 | P.O. # P-104A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	120	1	120	1
Pressure (PSIG)	1777	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	7.74×10^6 (Accident and Normal Gamma)	70 & 80	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	44	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By P.B. Bates | Date 12/9/83

PLANT I. D. HV-41-1F032B

DESCRIPTION Motor Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	16	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	-	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Sefton DATE 12/9/83

FOREIGN PRINT # 8031-P-104A-2-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F032B

DESCRIPTION Motor Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	30	Asbestcs (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	-	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Stern DATE 12/9/83

FOREIGN PRINT # 8031-P-104A-2-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81)

Plant I.D. HV-41-1F074A	Description Air Op. Check Valve	Equip. Manuf. Atwood and Morrill
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 12/283'/518	M.R./M.R. Item # P-116/1.1
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-P-116-AC	P.O. # P-116

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	120	1	120	1
Pressure (PSIG)	2132	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	7.74×10^6 (Accident and Normal Gamma)	70 & 80	1.35×10^6 (Gamma)	1	1.11×10^6 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	49	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By [signature] Date 12/9/83

PLANT I. D. HV-41-1F074A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Patty DATE 12/1/83

FOREIGN PRINT # 8031-P-116-AC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-41-1F074A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Packing	19	Asbestos and Graphite (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-116-AC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required con-conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

Form #2 EQRR # 15 SHEET 3 OF 4

PLANT I. D. HV-41-1F074A

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac Ring	310, 311 312	Viton	TEMPERATURE (°F)	--	--	Valve operator not required for safety functioning of check valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-116-AC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. HV-41-1F074B | Description Air Op. Check Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/286'/518 | M.R./M.R. Item # P-116/1.1

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-116-AC | P.O. # P-116

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	120	1	120	1
Pressure (PSIG)	2132	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	7.74×10^6 (Accident and Normal Gamma)	70 & 80	1.35×10^6 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	49	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By [signature] | Date 12/9/83

PLANT I. D. HV-41-1F074B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-116-AC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. HV-41-1F074B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19	Asbestos and Graphite (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-P-116-AC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

PLANT I. D. HV-41-1F074B

DESCRIPTION Air Operated Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Uneepac Ring	310, 311, 312	Viton	TEMPERATURE (°F)	--	--	Valve operator not required for safety functioning of check valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B&R Paty DATE 12/1/83

FOREIGN PRINT # 8031-P-116-AC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. HV-41-1F084 | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 15C/286'/Z-2 | M.R./M.R. Item # P-114A/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114A-46-10 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	1.16×10^9 * 4.04×10^7 **	71 & 80	1.1×10^7 (Neutrons) 1.8×10^7 (Gamma)	1	1.37×10^8 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By R.R. Caty Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F084

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	--	--	Part removed prior to valve installation, performs no safety function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-41-1F084

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Raty DATE 12/1/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

PLANT I. D. HV-41-1F084

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Stern DATE 12/9/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ ~~Evaluation~~)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale)

Plant I.D. HV-41-1F085 | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/283'/597 | M.R./M.R. Item # P-114A/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114A-46-10 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	210	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.1×10^9 * 7.70×10^6 **	71 & 80	1.26×10^6 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By Brady | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. HV-41-1F085

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	--	--	Part removed prior to valve installation, performs no safety function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-41-1F085

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

PLANT I. D. HV-41-1F085

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lee DATE 12/9/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale)

Plant I.D. PSV-41-1F013A | Description Air Op. Relief Valve | Equip. Manuf. Target Rock

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/286'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-1-B21-F013-C-5.2 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 3.47×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By [signature] | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013A

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013A

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. PSV-41-1F013A

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	74 and 72	

REVISION # 0 DATE 11/30/83

PREPARED BY V. Pichai DATE 11/30/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The "O"-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013B | Description Air Op. Relief Valve | Equip. Manuf. Target Rock

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/286'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-1-B21-F013-C-5.2 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 3.47×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By [signature] | Date 12/11/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013B

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts

PLANT I. D. PSV-41-1F013B

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. PSV-41-1F013B

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013C	Description Air Op. Relief Valve	Equip. Manuf. Target Rock
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 15C/286'/Z-5	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-1-B21-F013-C-5.2	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 3.47×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By B R Patty Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013C

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.R. Raty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013C

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.C. Petty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. PSV-41-1F013C

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F-13-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on 2Q Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013D | Description Air Op. Relief Valve | Equip. Manuf. Target Rock

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/286'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-1-B21-F013-C-5.2 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 3.47×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By [signature] | Date 12/1/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013D

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12.1.83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013D

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Petty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. PSV-41-1F013D

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B R Patel DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D.	PSV-41-1P013E	Description	Air Op. Relief Valve	Equip. Manuf.	Target Rock
System/CCP	Nuclear Boiler/026	Area/Elev./Rm. #	12C/286'/Z-5	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-41 Rev. 18	Foreign Print #	8031-M-1-B21-F013-C-5.2	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 6.69×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 8.8×10^{6} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status	Acceptable (See Form #2)	Comments	Valve subject to chemical spray
Revision #	1		* Accident Beta
Prepared By	David Sexton	Date	12/9/83
			** Accident and Normal Gamma
Reviewed By	R B Baty	Date	12/9/83

PLANT I. D. PSV-41-1F013E

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. FSV-41-1F013E

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY [signature] DATE 12/9/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta process conditions due to attenuation of beta and intermittent use of valves.

PLANT I. D. PSV-41-1F013E

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013F | Description Air Op. Relief Valve | Equip. Manuf. Target Rock

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/286'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-1-B21-F013-C-5.2 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 3.47×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	1.37×10^8 (Gamma) 1.97×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By [signature] | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013F

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013F

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R2Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. PSV-41-1F013F

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013G	Description Air Op. Relief Valve	Equip. Manuf. Target Rock
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 15C/286'/Z-5	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-1-B21-F013-C-5.2	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 3.47×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	1.37×10^7 (Gamma) 1.98×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray

Revision # 1 Date 12/9/83

* Accident Beta

Prepared By David Sexton Date 12/9/83

** Accident and Normal Gamma

Reviewed By [signature] Date 12/9/83

PLANT I. D. PSV-41-1F013G

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013G

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.B. Patel DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. PSV-41-1F013G

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.B. Raby DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013H | Description Air Op. Relief Valve | Equip. Manuf. Target Rock

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/286'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-1-B21-F013-C-5.2 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 6.69×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 8.8×10^{6} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By [signature] | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013H

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013H

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY P.R. Paty DATE 12/9/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta process conditions due to attenuation of beta and intermittent use ~~of~~ valves.

PLANT I. D. PSV-41-1F013H

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Patel DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only garma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013J		Description Air Op. Relief Valve		Equip. Manuf. Target Rock	
System/CCP Nuclear Boiler/026		Area/Elev./Rm. # 12C/273'/Z-5		M.R./M.R. Item # M-001/	
Ref. Dwg. # P&ID M-41 Rev. 18		Foreign Print # 8031-M-1-B21-F013-C-5.2		P.O. # M-001	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 3.47×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By B&R Paty Date 12/11/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013J

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013J

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. PSV-41-1F013J

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013K | Description Air Op. Relief Valve | Equip. Manuf. Target Rock

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/273'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-1-B21-F013-C-5.2 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 6.69×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 8.8×10^{6} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By B R Paty | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013K

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B&R Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013K

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY [signature] DATE 12/9/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta process conditions due to attenuation of beta and intermittent use of valve.

PLANT I. D. PSV-41-1F013K

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013L	Description Air Op. Relief Valve	Equip. Manuf. Target Rock
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 15C/273'/Z-5	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-1-B21-F013-C-5.2	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 3.47×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	1.37×10^8 (Gamma) 1.97×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By P.R. Paty Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013L

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.S. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013L

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flex-tallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexi-tallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. PSV-41-1F013L

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B2 Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013M | Description Air Op. Relief Valve | Equip. Manuf. Target Rock

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/273'/Z-5 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-1-B21-F013-C-5.2 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 6.69×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 8.8×10^{6} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By B.R. Paty | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013M

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B R Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013M

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Fichai DATE 12/9/83

REVIEWED BY P.R. Raby DATE 12/9/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta process conditions due to attenuation of beta and intermittent use of valve.

PLANT I. D. PSV-41-1F013M

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Doty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D.	PSV-41-1F013N	Description	Air Op. Relief Valve	Equip. Manuf.	Target Rock
System/CCP	Nuclear Boiler/026	Area/Elev./Rm. #	16C/273'/Z-5	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-41 Rev. 18	Foreign Print #	8031-M-1-B21-F013-C-5.2	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 3.47×10^7 **	71 & 80	5.5×10^6 (Neutrons) 8.8×10^6 (Gamma)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 1 Date: 12/9/83

Prepared By: David Sexton Date: 12/9/83

Reviewed By: B R Patty Date: 12/9/83

Comments: Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013N

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013N

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. PSV-41-1F013N

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F013S	Description Air Op. Relief Valve	Equip. Manuf. Target Rock
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 11C/273'/Z-5	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-1-B21-F013-C-5.2	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1115	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 6.69×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 8.8×10^{6} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 1 Date: 12/9/83

Prepared By: David Sexton Date: 12/9/83

Reviewed By: R.E. Patty Date: 12/9/83

Comments: Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F013S

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm-Air Operator	85	Silicone/Nomex	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 & 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B. Raby DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-6.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta radiation will be attenuated by the surrounding metal parts.

PLANT I. D. PSV-41-1F013S

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	127, 128, 129, 130, 132	Cres and Canadian Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
Gasket	133, 134, 135	Inconel 600 and Canadian Asbestos (Flexitallic)	RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY Safety DATE 12/9/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta process conditions due to attenuation of beta and intermittent use of valve.

PLANT I. D. PSV-41-1F013S

DESCRIPTION Air Operated Relief Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	122, 123, 124, 126	Silicone	TEMPERATURE (°F)	450	74 and 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	74 and 72	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B R Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-1-B21-F013-C-7.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability based on aging analysis exceeds plant life plus end of life accident. The O-Rings will be subjected to only gamma and neutron radiation as the beta rad. will be attenuated by the surrounding metal parts.

Plant I.D. PSV-41-1F037A	Description Vacuum Breaker	Equip. Manuf. Anderson-Greenwood
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 12C/238'/Z-4	M.R./M.R. Item # M-081/2a
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-81-70-9BR	P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Orhai Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037A

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F037B | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Archai Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037B

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.A. Laty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D.	PSV-41-1F037C	**Description**	Vacuum Breaker	**Equip. Manuf.**	Anderson-Greenwood
System/CCP	Nuclear Boiler/026	**Area/Elev./Rm. #**	11C/238'/Z-4	**M.R./M.R. Item #**	M-081/2a
Ref. Dwg. #	P&ID M-41 Rev. 18	**Foreign Print #**	8031-M-81-70-9BR	**P.O. #**	M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 **Date** 12/9/83

Prepared By David Sexton **Date** 12/9/83

Reviewed By V. Dhehai **Date** 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037C

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F037D | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Pachrai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037D

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY BRady DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F037E | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Behrai | Date 12/16/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Beta

PLANT I. D. PSV-41-1F037E

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY B. Raley DATE 12/9/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attenuation of beta and intermittent use of valve.

Plant I.D. PSV-41-1F037F	Description Vacuum Breaker	Equip. Manuf. Anderson-Greenwood
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 16C/238'/Z-4	M.R./M.R. Item # M-081/2a
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-81-70-9BR	P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Orehai Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037F

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F037G | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 15C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Rehai Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037G

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F037H | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-79-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Pichai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037K

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY Safety DATE 12/9/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attentuation of beta and intermittent use of valve.

Plant I.D. PSV-41-1F037J | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Pichai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037J

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.R. Raty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F037K | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Oichai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037K

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY [signature] DATE 12/9/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attenuation of beta and intermittent use of valve.

Plant I.D. PSV-41-1F037L | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 15C/238'Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # C031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Oichai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037L

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F037M | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 15C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Raichai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037M

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY B. Raty DATE 12/9/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attenuation of beta and intermittent use of valve.

Plant I.D. PSV-41-1F037N | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9b? | P.O. # M-091

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Pichai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037N

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B&R Eaty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F037S	Description Vacuum Breaker	Equip. Manuf. Anderson-Greenwood
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 15C/238'/Z-4	M.R./M.R. Item # M-081/2a
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-81-70-9BR	P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Rahvai Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F037S

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY B R Paty DATE 12/9/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attenuation of beta and intermittent use of valve.

Plant I.D. PSV-41-1F097A	Description Vacuum Breaker		Equip. Manuf. Anderson-Greenwood		
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 11C/238'/Z-4		M.R./M.R. Item # M-081/2a		
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-81-70-9BR		P.O. # M-081		

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Pachai Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097A

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B R Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F097B | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 3031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Orehai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

**Accident and Normal Gamma

PLANT I. D. PSV-41-1F097B

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B&R Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F097C | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Archer | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097C

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F097D | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Pichai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097D

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F097E | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Orchai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097E

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY B R Paty DATE 12/9/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attenuation of beta and intermittent use of valve.

Plant I.D. PSV-41-1F097F	Description Vacuum Breaker	Equip. Manuf. Anderson-Greenwood
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 15C/238'/Z-4	M.R./M.R. Item # M-081/2a
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-81-70-9BR	P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status	Acceptable (See Form #2)	Comments	Valve subject to chemical spray
Revision #	1	Date	12/9/83
			* Accident Beta
Prepared By	David Sexton	Date	12/9/83
			** Accident and Normal Gamma
Reviewed By	V. Bahai	Date	12/9/83

PLANT I. D. PSV-41-1F097F

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B2Rlaty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F097G | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.30×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Orthai Date 12/12/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097G

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F097H | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Pichai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097H

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY B.C. Patty DATE 12/9/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attenuation of beta and intermittent use of valve.

Plant I.D. PSV-41-1F097J | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Pichai Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097J

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Baty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F097K | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 15C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Orchai | Date 12/14/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097K

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY B R Patey DATE 12/9/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attenuation of beta and intermittent use of valve.

Plant I.D. PSV-41-1F097L | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/238/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Orchai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097L

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P&S Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F097M	Description Vacuum Breaker	Equip. Manuf. Anderson-Greenwood
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 16C/238/Z-4	M.R./M.R. Item # M-081/2a
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-M-31-70-9BR	P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 1 Date 12/9/83

Prepared By David Sexton Date 12/9/83

Reviewed By V. Orehai Date 12/9/83

Comments: Valve subject to chemical spray

* Accident Beta

** Accident Normal Gamma

PLANT I. D. PSV-41-1F097M

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY R.R. Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attenuation of beta and intermittent use of valve.

Plant I.D. PSV-41-1F097N | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 15C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	3.80×10^9 * 4.39×10^7 **	71 & 80	5.5×10^6 (Neutrons) 1.8×10^7 (Gamma)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Orehai | Date 12/9/83

Comments Valve subject to chemical spray

* Accident Beta

** Accident and Normal Gamma

PLANT I. D. PSV-41-1F097N

DESCRIPTION Vacuum Breaker

SYSTEM/UCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. PSV-41-1F097S | Description Vacuum Breaker | Equip. Manuf. Anderson-Greenwood

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/238'/Z-4 | M.R./M.R. Item # M-081/2a

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-81-70-9BR | P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	480	3	150	1	340	1
Pressure (PSIG)	459	3	.75	1	44	1
Radiation (Rads)	1.34×10^{10} * 7.61×10^{7} **	71 & 80	5.5×10^{6} (Neutrons) 1.8×10^{7} (Gamma)	1	4.59×10^{7} (Gamma) 1.18×10^{9} (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve subject to chemical spray

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By V. Orchai | Date 12/9/83

PLANT I. D. PSV-41-1F097S

DESCRIPTION Vacuum Breaker

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket-Flange	28	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 1 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY P.R. Patel DATE 12/9/83

FOREIGN PRINT # 8031-M-81-70-9BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Gasket will not be exposed to entire beta radiation process conditions due to attenuation of beta and intermittent use of valve.

Plant I.D. XV-41-1F009 Description Flow Limiting Valve Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 Area/Elev./Rm. # 11/283'/(See Comments) M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 Foreign Print # 8031-M-231-1-10 P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By B R Paty Date 12/1/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F009

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F009

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F009

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B. Raty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. Evaluation (Based on E)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F009

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.R. Raty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F070A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By [signature] | Date 12/1/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F070A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F070A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F070A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Bobaty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F070A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Baty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F070B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By [signature] | Date 12/1/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F070B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 10/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F070B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R2R Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F070B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B.R. Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F070B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B. Patel DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F070C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By [signature] Date 12/1/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F070C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R. Caty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F070C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F070C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.C. Raty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F070C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Form #2 EQRR # 64 SHEET 5 OF 5

Plant I.D. XV-41-1F070D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/217/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By R.A. Paty | Date 12/1/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

Form #1 EQRR # 65

PLANT I. D. XV-41-1F070D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F070D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F070D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [illegible] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F070D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F071A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By [signature] | Date 8/11/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F071A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F071A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.D. Patel DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F071A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY R.B. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F071A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F071B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By [signature] Date 12/1/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F071B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY M R Patey DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F071B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F071B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATER. CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY Safety DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F071B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY B&R Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F071C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By [signature] | Date 11/30/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

Form #1 EQRR # 68

PLANT I. D. XV-41-1F071C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY DAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-071C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F071C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY J.T. Kumar DATE 11/20/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F071C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kemal DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F071D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By [signature] | Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F071D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY AKuney DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F071D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (BAsed on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F071D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F071D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F072A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By PA Kumar Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F072A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY PAKerman DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F072A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F072A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F072A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F072B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By PAKumar | Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F072B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kenney DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F072B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (BAsed on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F072B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.A. Kuway DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F072B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY PAKeenan DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F072C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By A Kuwa Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F072C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F072C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F072C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F072C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY PAKesmas DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F072D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/15/83

Prepared By Davi exton Date 8/15/83

Reviewed By A Kumar Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F072D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kennay DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F072D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.K.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F072D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.K. Samal DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F072D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F073A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By A Kumar Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F073A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY SAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F073A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F073A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F073A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F073B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By AKumar | Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F073B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F073B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F073B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F073B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	9i	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F073C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/217'/(See Comments) | M.R./M.R. Item # M-231/

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By JKumar Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F073C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F073C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F073C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F073C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY P A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. XV-41-1F073D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/217'/(See Comments) | M.R./M.R. Item # M-231/5.1

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Accident and Normal Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Pichai | Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those specified above for LOCA conditions. (See Ref. 82)

PLANT I. D. XV-41-1F073D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-41-1F073D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F073D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethelyene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years @ 120°F	76	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-41-1F073D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. 1F010A | Description Check Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/286/Z-2 | M.R./M.R. Item # P-105/1.1

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-105BC | P.O. # P-105

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	150	1	330	1
Pressure (PSIG)	2132	3	.75	1	44	1
Radiation (Rads)	4.94×10^7 (Accident and Normal Gamma)	70 & 80	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^8 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	46	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve subject to chemical spray

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By PAKumar | Date 12/9/83

PLANT I. D. 1F010A

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY A.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-105BC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. 1F010B | Description Check Valve | Equip. Manuf. Atwood and Morrill

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/286/Z-2 | M.R./M.R. Item # P-105/1.1

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-105BC | P.O. # P-105

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	150	1	330	1
Pressure (PSIG)	2132	3	.75	1	44	1
Radiation (Rads)	$4,94x10^7$ (Accident and Normal Gamma)	70 & 80	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^8 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	46	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve subject to chemical spray

Revision # 1 | Date 12/9/83

Prepared By David Sexton | Date 12/9/83

Reviewed By PA Kumar | Date 12/9/83

PLANT I. D. 1F010B

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/16/83

PREPARED BY V. Pichai DATE 11/16/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-P-105BC

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

Plant I.D. 1F024A | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/283'/Z-2 | M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-21-12 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By A Kumar | Date 11/30/83

PLANT I. D. 1F024A

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/1/4/83

REVIEWED BY SAKumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F024B	Description Check Valve	Equip. Manuf. Borg Warner
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 12C/283'/Z-2	M.R./M.R. Item # P-114B/5.3
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-P-114B-21-12	P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By JAKumar Date 11/30/83

PLANT I. D. 1F024B

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/1/4/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F024C | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/283'/Z-2 | M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-21-12 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By PAKumar | Date 11/30/83

PLANT I. D. 1F024C

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL
Cap Plug	20	Polyethylene
Cap Plug	18	Polyethylene

IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION

PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER
TEMPERATURE (°F)	--	--
PRESSURE (PSIG)	--	--
RADIATION (Rads)	--	--
HUMIDITY (%)	--	--
AGING ANALYSIS	--	--

RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:

Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY V.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F024D | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/283'/Z-2 | M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-21-12 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By PAKumar | Date 11/30/83

PLANT I. D. 1F024D

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION		
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--
			RADIATION (Rads)	--	--
			HUMIDITY (%)	--	--
			AGING ANALYSIS	--	--

RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:

Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/1/4/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F029A | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/270'/518 | M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-21-12 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	120	1	311	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	9.9	1
Radiation (Rads)	N/A	N/A	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments HELB Accident Ambient Conditions

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By JAKumar | Date 11/30/83

PLANT I. D. 1F029A

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/1/4/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ) Evaluation

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1P029B | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12/280'/518 | M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-21-12 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	120	1	351	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	9.9	1
Radiation (Rads)	N/A	N/A	35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments HELB Accident Ambient Conditions

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By PAKumar | Date 11/30/83

PLANT I. D. 1F029B

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/1/4/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN POINT # 8031-P-114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F029C | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/277'/518 | M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-21-12 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	120	1	311	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	9.9	1
Radiation (Rads)	N/A	N/A	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments HELB Accident Ambient Conditions

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By AKumar | Date 11/30/83

PLANT I. D. 1F029C

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/1/4/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F029D | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11/278'/518 | M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-21-12 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	120	1	311	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	9.9	1
Radiation (Rads)	N/A	N/A	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments HELB Accident Ambient Conditions

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By PAKumar | Date 11/30/83

PLANT I. D. 1F029D

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/1/4/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036A | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/296'/Z-2 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Ozbas | Date 11/30/83

PLANT I. D. 1F036A

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036B | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/296'/Z-2 | M.R./M.R. Item # P-114B/ 5.5

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^8 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Orchard | Date 11/30/83

PLANT I. D. 1F036B

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY A.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036C | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 15C/296'/Z-2 | .R./M.R. Item # P-114B/ 5.5

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^8 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Orchard | Date 11/30/83

PLANT I. D. 1F036C

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036D | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/296'/Z-2 | M.R./M.R. Item # P-114B/ 5.5

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^8 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By P A Kumar | Date 11/30/83

PLANT I. D. 1F036D

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036E | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/296'/Z-2 | M.R./M.R. Item # P-114B/ 5.5

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Ochai | Date 11/30/83

PLANT I. D. 1F036E

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY PA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036F | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 16C/296'/Z-2 | M.R./M.R. Item # P-114B/ 5.5

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^8 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2

Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Pichai | Date 11/30/83

PLANT I. D. 1F036F

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036G | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 150/296'/Z-2 | ./M.R. Item # P-114B/ 5.5

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^8 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Pichai | Date 11/30/83

PLANT I. D. 1F036G

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036H | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/296'/Z-2 | M.R./M.R. Item # P-114B/ 5.5

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Orchard | Date 11/30/83

PLANT I. D. 1E036H

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036J | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 12C/296'/Z-2 | I.R./M.R. Item # P-114B/ 5.5

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Dehai | Date 11/30/83

PLANT I. D. 1F036J

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036K	Description Check Valve	Equip. Manuf. Borg Warner
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 16C/296'/Z-2	M.R./M.R. Item # P-114B/ 5.5
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-P-114B-16-10	P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^9 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments Valve is subject to chemical spray

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By V. Orchai Date 11/30/83

PLANT I. D. 1F036K

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY PAkumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036L	Description Check Valve	Equip. Manuf. Borg Warner
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 15C/296'/Z-2	M.R./M.R. Item # P-114B/ 5.5
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-P-114B-16-10	P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^8 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve is subject to chemical spray

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By V. Dehai Date 11/30/83

PLANT I. D. 1FO36L

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036M | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Nuclear Boiler/026 | Area/Elev./Rm. # 11C/296'/Z-2 | M.R./M.R. Item # P-114B/ 5.5

Ref. Dwg. # P&ID M-41 Rev. 48 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve is subject to chemical spray

Revision # 0 | Date 8/15/83

Prepared By David Sexton | Date 8/15/83

Reviewed By V. Pathai | Date 11/30/83

PLANT I. D. 1F036M

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION		
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--
			RADIATION (Rads)	--	--
			HUMIDITY (%)	--	--
			AGING ANALYSIS	--	--

RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:

Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P.K.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036N	Description Check Valve	Equip. Manuf. Borg Warner
System/CCP Nuclear Boiler/026	Area/Elev./Rm. # 16C/296'/Z-2	M.R./M.R. Item # P-114B/ 5.5
Ref. Dwg. # P&ID M-41 Rev. 18	Foreign Print # 8031-P-114B-16-10	P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve is subject to chemical spray

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By V. Achai Date 11/30/83

PLANT I. D. 1E036N

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F036S		Description Check Valve		Equip. Manuf. Borg Warner	
System/CCP Nuclear Boiler/026		Area/Elev./Rm. # 11C/296'/Z-2		M.R./M.R. Item # P-114B/ 5.5	
Ref. Dwg. # P&ID M-41 Rev. 18		Foreign Print # 8031-P-114B-16-10		P.O. # P-114B	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	.75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve is subject to chemical spray

Revision # 0 Date 8/15/83

Prepared By David Sexton Date 8/15/83

Reviewed By V. Dithai Date 11/30/83

PLANT I. D. 1F036S

DESCRIPTION Check Valve

SYSTEM/CCP Nuclear Boiler/026

REQUIRED CONDITIONS 1, 2, and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P.N. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. HV-40-1F001B | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. # 12/253'/407 | M.R./M.R. Item # P-114A/9.25

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident Gamma
** Accident Beta

Revision # 1 | Date 12/7/83

Prepared By B. R. Patel | Date 12/7/83

Reviewed By D. Lem | Date 12/8/83

PLANT I. D. HV-40-1F001B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lesar DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F001F Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 12/253'/407 M.R./M.R. Item # P-114A/9.25

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # 8031-P-114A-69-7 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Date 12/8/83

Comments * Accident Gamma
** Accident Beta

PLANT I. D. HV-40-1F001F

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lee DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F001K | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. # 11/253'/407 | M.R./M.R. Item # P-114A/9.25

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident Gamma
** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lee Date 12/8/83

PLANT I. D. HV-40-1F001K

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepa DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F001P | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. # 11/253'/407 | M.R./M.R. Item # P-114A/9.25

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^3 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident Gamma
** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Jeffs Date 12/8/83

PLANT I. D. HV-40-1F001P

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepa DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F002B | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. # 12/253'/407 | M.R./M.R. Item # P-114A/9.25

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/7/83

Prepared By B. K. Patel Date 12/7/83

Reviewed By D. Lem Date 12/8/83

Comments * Accident Gamma
** Accident Beta

Form #1 EQRR # 5 Sheet 1 of 2

PLANT I. D. HV-40-1F002B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lem DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F002F | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. #12/253'/407 | M.R./M.R. Item # P-114A/9.25

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident Gamma
 ** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lemon Date 12/8/83

PLANT I. D. HV-40-1F002F

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lee DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F002K | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. #11/253'/407 | M.R./M.R. Item #P-114A/9.25

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6* 8.4×10^9**	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident Gamma
** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lem Date 12/8/83

PLANT I. D. HV-40-1F002k

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lotta DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F002P Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. #11/253'/407 M.R./M.R. Item #P-114A/9.25

Ref. Dwg. #P&ID M-40 Rev. 5 Foreign Print # 8031-P-114A-69-7 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 3.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident Gamma ** Accident Beta

Revision # 1 Date 12/7/83

Prepared By R. R. Patel Date 12/7/83

Reviewed By D. Jeran Date 12/8/83

PLANT I. D. HV-40-1F002P

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lee DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F003B | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. #12/253'/407 | M.R./M.R. Item # P-114A/9.27

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (SEe Form #2)

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lepa Date 12/8/83

Comments * Accident Gamma
** Accident Beta

PLANT I. D. HV-40-1F003B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Shaw DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F003F | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. # 12/253'/407 | M.R./M.R. Item # P-114A/9.27

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident Gamma
** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lemon Date 12/8/83

PLANT I. D. HV-40-1F003F

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Peter DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F003K Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 12/253'/407 M.R./M.R. Item # P-114A/9.27

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # 8031-P-114A-69-7 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident Gamma ** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lam Date 12/8/83

PLANT I. D. HV-40-1F003K

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lenn DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F003P | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. # 12/253'/407 | M.R./M.R. Item # P-114A/9.27

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status ~~Acceptable~~ (See Form #2)

Comments * Accident Gamma
** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lem Date 12/8/83

PLANT I. D. HV-40-1F003P

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Fetter DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F006 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 11/253'/407 M.R./M.R. Item # P-114A/9.29

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # 8031-P-114A-69-7 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lam Date 12/8/83

Comments * Accident Gamma
** Accident Beta

Form #1 EQRR # 13 Sheet 1 of 2

PLANT I. D. HV-40-1F006

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lemm DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F007 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 11/253'/407 M.R./M.R. Item # P-114A/9.29

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # 8031-P-114A-69-7 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident Gamma ** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lam Date 12/8/83

PLANT I. D. HV-40-1F007

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepon DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F008 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 11/253'/407 M.R./M.R. Item # P-114A/9.37

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # 8031-P-114A-69-7 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 6.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident Gamma ** Accident Beta

Revision # 1 Date 12/7/83

Prepared By R. R. Patel Date 12/7/83

Reviewed By D. Lopa Date 12/8/83

PLANT I. D. HV-40-1F008

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lefon DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-40-1F009 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. #11/253'/407 M.R./M.R. Item # P-114A/9.31

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # 8031-P-114A-69-7 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1115	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	1.77×10^6 * 8.4×10^9 **	71 & 93	1.35×10^6 (Gamma)	1	5.16×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident Gamma
** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Jenn Date 12/8/83

PLANT I. D. HV-40-1F009 DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCF MSIV Leakage Control/028 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepon DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. XV-40-101B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. # 12/253'/ (See Comments) | M.R./M.R. Item # M-231/40.1

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7-21-83

Prepared By B. R. Patel Date 7-21-83

Reviewed By D. Leon Date 11/29/83

Comments Room number not identified for Flow limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82)

PLANT I. D. XV-40-101B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. G. Lewis DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-40-101B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lerm DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-40-101B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/14/83

PREPARED BY B. K. Patel DATE 10/14/83

REVIEWED BY D. Lee DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-40-101B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lee DATE 11/24/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D XV-40-101F Description Flow Limiting Valve Equip. Manuf. Marotta

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 12/253'/(See Comments) M.R./M.R. Item # M-231/40.1

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # 8031-M-231-1-10 P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7-21-83

Prepared By B. R. Patel Date 7-21-83

Reviewed By D. Lem Date 11/29/83

Comments Room numbers not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82)

PLANT I. D. XV-40-101F

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepa DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-40-101F

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Jeffries DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-40-101F

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lee DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-40-101F

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepa DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-40-101K | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP MSIV Leakage Control/028 | Area/Elev./Rm. # 12/253'/ (See Comments) | M.R./M.R. Item # M-231/40.1

Ref. Dwg. # P&ID M-40 Rev. 5 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7-21-83

Prepared By B. R. Patel | Date 7-21-83

Reviewed By D. Lem | Date 11/29/83

Comments Room numbers not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82)

PLANT I. D. XV-40-101K

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Letton DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-40-101K

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepa DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-40-101K

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lerin DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-40-101K

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepa DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-40-101P	Description Flow Limiting Valve	Equip. Manuf. Marotta
System/CCP MSIV Leakage Control/028	Area/Elev./Rm. # 12/253'/ (See Comments)	M.R./M.R. Item # M-231/40.1
Ref. Dwg. # P&ID M-40 Rev. 5	Foreign Print # 8031-M-231-1-10	P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" (Gamma)	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7-21-83

Prepared By B. R. Patel Date 7-21-83

Reviewed By D. Lepa Date 11/24/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-40-101F

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Leeson DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-40-101P

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepan DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule)

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-40-101P

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 2&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Patel DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-40-101P

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP MSIV Leakage Control/028

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lewin DATE 11/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 1AK209 Description Blower Equip. Manuf. _____

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 12/253'/402 M.R./M.R. Item # M-001/01

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # _____ P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	196	3	104	1	120	1
Pressure (PSIG)	1	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.77×10^6 * 3.4×10^3 **	71 & 93	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments * Accident Gamma ** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lenta Date 12/8/83

Form #1 EQRR # 21 Sheet 1 of ___

Plant I.D. 1EK209 Description Blower Equip. Manuf.

System/CCF MSIV Leakage Control/028 Area/Elev./Rm. # 12/253'/402 M.R./M.R. Item # M-001/01

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	196	3	104	1	120	1
Pressure (PSIG)	1	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.77×10^6 * $8..4 \times 10^9$ **	71 & 93	$3.5i \times 10^4$ (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Comments * Accident Gamma
** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lepa Date 12/8/83

Form #1 EQRR # 22 Sheet 1 of ___

Plant I.D. 1F010 Description Check Valve Equip. Manuf. Borg Warner

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 12/254'/402 M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # 8031-P-114B-16-10 P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	196	3	104	1	120	1
Pressure (PSIG)	150	3	-1/4" W.G	1	Atmosphere	1
Radiation (Rads)	1.77×10^6 * 6.2×10^3 **	71 & 93	3.5×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident Gamma ** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lem Date 12/8/83

Form #1 EQRR # 23 Sheet 1 of 2

PLANT I. D. 1F010 DESCRIPTION Check Valve

SYSTEM/CCP MSIV Leakage Control/028 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance
			PRESSURE (PSIG)	--	--	
Cap Plug	28	Polyethylene	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-1148-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1F011 Description Check Valve Equip. Manuf. Borg Warner

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 12/254'/402 M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # 8031-P-114B-16-10 P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	104	1	120	1
Pressure (PSIG)	150	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.77×10^6 * 6.2×10^3 **	71 & 93	3.5×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2) Comments * Accident Gamma ** Accident Beta

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Lepa Date 12/8/83

PLANT I. D. 1F011 DESCRIPTION Check Valve

SYSTEM/CCP MSIV Leakage Control/028 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 10K208 Description Blower Equip. Manuf. G.E.

System/CCP MSIV Leakage Control/028 Area/Elev./Rm. # 12/253'/402 M.R./M.R. Item # M-001/01

Ref. Dwg. # P&ID M-40 Rev. 5 Foreign Print # P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.77×10^6* 3.4×10^9**	71 & 93	3.51×10^4*	1	1.38×10^6** 4.15×10^6**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Revision # 1 Date 12/7/83

Prepared By B. R. Patel Date 12/7/83

Reviewed By D. Jeon Date 12/8/83

Comments *Accident Gamma

**Accident Beta

Form #1 EQRR # 25 Sheet 1 of ___

Plant I.D. HV-44-1F001 Description Motor Op. Valve Equip. Manuf. Anchor/Darling

System/CCP Reactor Water Cleanup/029 Area/Elev./Rm. # 15C/286'/Z-2 M.R. 'M.R. Item # P-107A/16.1

Ref. Dwg. # P&ID M-44 Rev. 13 Foreign Print # 8031-P-107A-69-6 P.O. # P-107A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	.75	1	44	1
Radiation (Rads)	4.15×10^6 (Normal & Accident Gamma)	7?	1.1×10^7 (Neutrons) 1.8×10^7 (Gamma)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	48	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By [signature] Date 10/25/83

PLANT I. D. HV-44-1F001

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16	Asbestos (John Crane 187I)	TEMPERATURE (°F)	120C	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.A. Kumar DATE 10/28/83

FOREIGN PRINT # 8031-P-107A-69-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-44-1F001

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16A	Asbestos (John Crane 187I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Kumar DATE 10/28/83

FOREIGN PRINT # 8031-P-107A-69-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-44-1F004 | Description Motor Op. Valve | Equip. Manuf. Anchor/Darling

System/CCP Reactor Water Cleanup/029 | Area/Elev./Rm. # 15/253'/522 | M.R./M.R. Item # P-107A/16.3

Ref. Dwg. # P&ID M-44 Rev. 13 | Foreign Print # 8031-P-107A-69-6 | P.O. # P-107A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	210	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	2.7	1
Radiation (Rads)	4.15×10^6 (Normal & Accident Gamma)	71	1.26×10^6 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	48	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 0 | Date 8/19/83

Prepared By D. Sexton | Date 8/19/83

Reviewed By A.A. Kumar | Date 10/25/83

PLANT I. D. HV-44-1F004

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16	Asbestos (John Crane 1871)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 10/28/83

FOREIGN PRINT # 8031-P-107A-69-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-44-1F004

DESCRIPTION Motor Operated Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16A	Asbestos (John Crane 187I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A. Kumar DATE 10/26/83

FOREIGN PRINT # 8031-P-107A-69-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. XV-44-102A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Water Cleanup/029 | Area/Elev./Rm. # 15/283'/ | M.R./M.R. Item # M-231/35.1

Ref. Dwg. # P&ID M-44 Rev. 13 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By P A Kumar Date 10/20/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambients conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-44-102A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY A Kumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (See Rationale)

COMMENTS

PLANT I. D. XV-44-102A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY PAKumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-102A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-102A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY P A Kumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-44-102B	Description Flow Limiting Valve	Equip. Manuf. Marotta
System/CCP Reactor Water Cleanup/029	Area/Elev./Rm. # 15/283'/	M.R./M.R. Item # M-231/35.1
Ref. Dwg. # P&ID M-44 Rev. 13	Foreign Print # 8031-M-231-1-10	P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By A Kumar Date 10/28/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-44-102B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY PAKumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (See Rationale)

COMMENTS

PLANT I. D. XV-44-102B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P A Kumar DATE 10/26/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-102B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.T. Kemas DATE 10/28/83

FOREIGN PRINT # 0031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-102B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY R A Kumar DATE 10/26/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-44-102C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Water Cleanup/029 | Area/Elev./Rm. # 15/283'/ | M.R./M.R. Item # M-231/28.1

Ref. Dwg. # P&ID M-44 Rev. 13 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

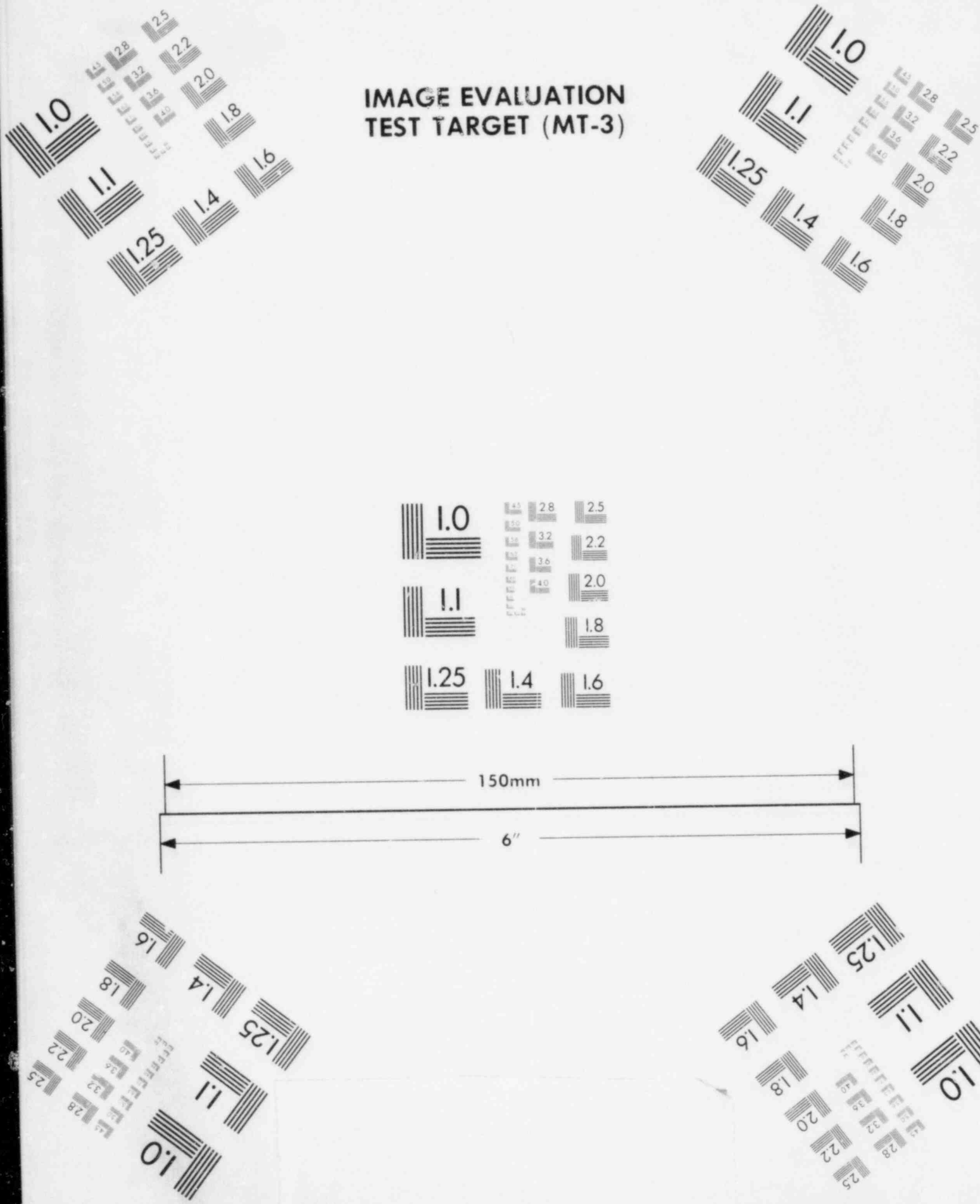
Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By [signature] Date 10/28/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).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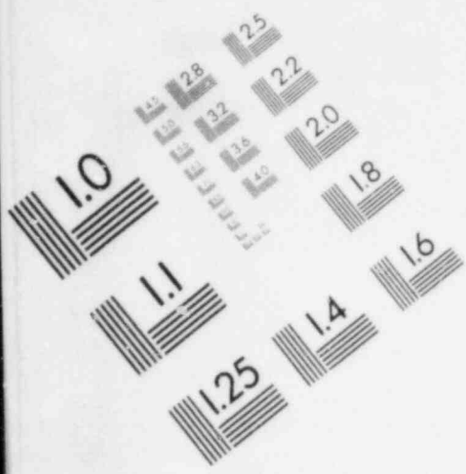
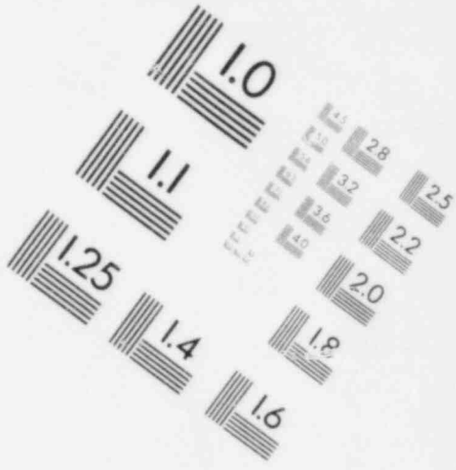
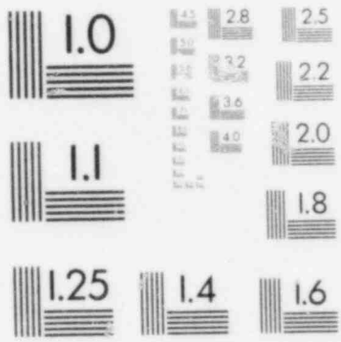
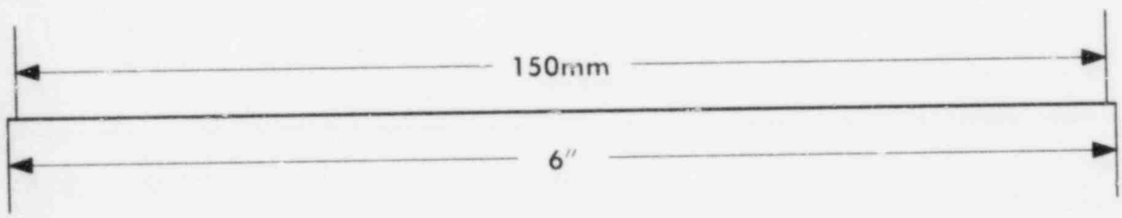
150mm
6"

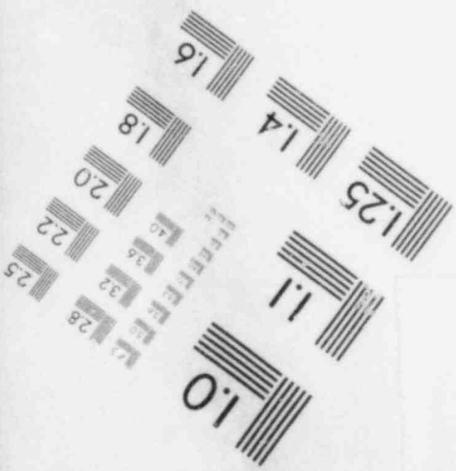
IMAGE EVALUATION
TEST TARGET (MT-3)

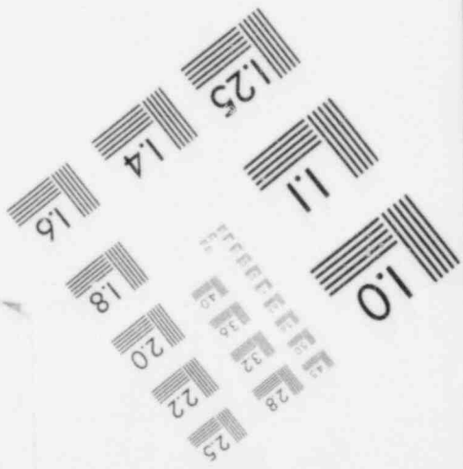












PLANT I. D. XV-44-102C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY P A Kumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (See Rationale)

COMMENTS

PLANT I. D. XV-44-102C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Kinson DATE 10/26/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

Form #2 EQRR # 5 SHEET 3 OF 5

PLANT I. D. XV-44-102C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.K. Kuan DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-102C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY BAKumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-44-102D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Water Cleanup/029 | Area/Elev./Rm. # 15/283'/ | M.R./M.R. Item # M-231/29.1

Ref. Dwg. # P&ID M-44 Rev. 13 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By A Kumar Date 10/28/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-44-102D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY P.A. Ceruzzi DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (See Rationale)

COMMENTS

PLANT I. D. XV-44-102D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY P A Kumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-102D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.A. Kumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-102D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY R. Kwan DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	XV-44-170	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Reactor Water Cleanup/029	Area/Elev./Rm. #	12/283'/	M.R./M.R. Item #	M-231/39.2
Ref. Dwg. #	P&ID M-44 Rev. 13	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.89×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/19/83

Prepared By: D. Sexton Date: 8/19/83

Reviewed By: P.A. Kenan Date: 10/28/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-44-170

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY PAKumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (See Rationale)

COMMENTS

PLANT I. D. XV-44-170

DESCRIPTION Flow Limi ng Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY S Kumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-170

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY RAKumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-170

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY P.A. Kumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-44-171 | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Water Cleanup/029 | Area/Elev./Rm. # 12/283'/ | M.R./M.R. Item # M-231/29.2

Ref. Dwg. # P&ID M-44 Rev. 13 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By P.A. Kumar Date 10/28/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (Ref. 82).

PLANT I. D. XV-44-171

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY A Kennedy DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable - (See Rationale)

COMMENTS

PLANT I. D. XV-44-171

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120 °F	76	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY A.P. Kumar DATE 10/20/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-171

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120° F	76	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY A Kumar DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability

PLANT I. D. XV-44-171

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Water Cleanup/029

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	-	

REVISION # 0 DATE 10-5-83

PREPARED BY V. Pichai DATE 10-5-83

REVIEWED BY A Kemay DATE 10/28/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-43-1F019	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Reactor Recirculation/032	Area/Elev./Rm. #	15C/273'/Z-4	M.R./M.R. Item #	P-114A/8.30
Ref. Dwg. #	P&ID M-43 Rev. 14	Foreign Print #	8031-P-114A-46-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	585	3	150	1	330	1
Pressure (PSIG)	1500	3	.75	1	44	1
Radiation (Rads)	8.83×10^6 *	70 & 71	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray.

* Accident & Normal Gamma

Revision #: 1 Date: 12/6/83

Prepared By: D. Sexton Date: 12/6/83

Reviewed By: [signature] Date: 12/7/83

PLANT I. D. HV-49-1F019

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Removed prior to valves installation. Not required for component functioning.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY A Kumar DATE 12/7/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-49-1F019

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1, 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required condition. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-43-1F019

SYSTEM/CCP Reactor Recirculation/032

DESCRIPTION Air Operated Globe Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lemon DATE 12/7/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D. HV-43-1F020		Description Air Op. Globe Valve		Equip. Manuf. Rockwell	
System/CCP Reactor Recirculation/032		Area/Elev./Rm. # 15/273'/501		M.R./M.R. Item # P-114A/8.36	
Ref. Dwg. #P&ID M-43 Rev. 14		Foreign Print # 8031-P-114A-46-10		P.O. # P-114A	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	585	3	115	1	120	1
Pressure (PSIG)	1500	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	4.15×10^5*	70 & 71	7.89×10^4 (Gamma)	1	9.43×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Comments * Accident & Normal Gamma

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By M Kumar Date 12/7/83

PLANT I. D. HV-49-1F020

SYSTEM/CCP Reactor Recirculation/032

DESCRIPTION Air Operated Globe Valve

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	-	-	Removed prior to valves installation.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	Not required for component functioning.
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY P.K. Kumar DATE 12/7/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-49-1F020

SYSTEM/CCP Reactor Recirculation/032

DESCRIPTION Air Operated Globe Valve

REQUIRED CONDITIONS 1, 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	* 81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-P-114A-46-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-43-1F020

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Seton DATE 12/7/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D. XV-43-103A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 15/217'/See comments | M.R./M.R. Item # M-231/41.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By RAKumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-103A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-103A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY RAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-103A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PM Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-103A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY AA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D.	XV-43-103B	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Reactor Recirculation/032	Area/Elev./Rm. #	15/217'/See comments	M.R./M.R. Item #	M-231/41.1
Ref. Dwg. #	P&ID M-43 Rev. 14	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/19/83

Prepared By: D. Sexton Date: 8/19/83

Reviewed By: A Kumar Date: 11/29/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82)

PLANT I. D. XV-43-103B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-103B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-103B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDFD REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-103B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FORCIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F003A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/ (See comments) | M.R./M.R. Item # M-231/17.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By R.H. Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82)

PLANT I. D. XV-43-1F003A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY R Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F003A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY BAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F003A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY RA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F003A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F003B — Description Flow Limiting Valve — Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 — Area/Elev./Rm. # 16/217'/(see comments) — M.R./M.R. Item # M-231/17-1

Ref. Dwg. #P&ID M-43 Rev. 14 — Foreign Print # 8031-M-231-1-10 — P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 — Date 8/19/83

Prepared By D. Sexton — Date 8/19/83

Reviewed By RAKumar — Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F003B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F003B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1FG03B

SYSTEM/CCP Reactor Recirculation/032

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.P. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F003B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F004A	Description Flow Limiting Valve	Equip. Manuf. Marotta
System/CCP Reactor Recirculation/032	Area/Elev./Rm. # 11/217'/(see comments)	M.R./M.R. Item # M-231/18.1
Ref. Dwg. # P&ID M-43 Rev. 14	Foreign Print # 8031-M-231-1-10	P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By RA Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F004A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F004A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F004A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F004A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F004B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 16/217'/(see comments) | M.R./M.R. Item # M-231/18.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By P.K. Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F004B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F004B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F004B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F004B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	53	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY VAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F009A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/19.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By P A Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F009A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY RAKuney DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F009A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years At 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F009A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F009A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.A.Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F009B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/LCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/19.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	$1 \times .0^7$ (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By [signature] Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F009B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F009B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F009B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F009B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY RAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F009C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/19.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By A Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F009C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.K.Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F009C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F009C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F009C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F009D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/19.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A		1		1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By P.A. Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F009D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F009D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F009D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F009D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.A. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F010A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/20.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By A Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F010A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F010A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F010A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F010A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F010B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/20.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By P.K. Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F010B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Cunay DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F010B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.K. DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on E Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F010B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F010B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F010C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/20.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By A Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F010C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F010C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F010C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F010C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	31	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F010D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/20.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	9C	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By M Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F010D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F010D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY RAKeenan DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F010D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY JAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F010D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F0011A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/21.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By P.A. Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F011A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F011A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F011A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY R Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F011A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F011B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 12/217'/(see comments) | M.R./M.R. Item # M-231/21.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By PAKumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F011B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F011B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY AA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F011B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.A. Kumay DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F011B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D.	XV-43-1F011C	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Reactor Recirculation/032	Area/Elev./Rm. #	/217'/(see comments)	M.R./M.R. Item #	M-231/21.1
Ref. Dwg. #	P&ID M-43 Rev. 14	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/19/83

Prepared By: D. Sexton Date: 8/19/83

Reviewed By: A Kumar Date: 11/29/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F011C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F011C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F011C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F011C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F011D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 12/217'/(see comments) | M.R./M.R. Item # M-231/21.1

Ref Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By R.K. Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F011D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY RAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F011D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F011D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F011D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.A.Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F0012A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/ (see comments) | M.R./M.R. Item # M-231/22.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By PA Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F012A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F012A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY R.K. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F012A

SYSTEM/CCP Reactor Recirculation/032

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.A. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F012A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.A. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F012B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 12/217'/(see comments) | M.R./M.R. Item # M-231/22.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By A Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F012B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F012B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

Form #2 EQRR # 22 SHEET 3 OF 5

PLANT I. D. XV-43-1F012B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY R A Kinsey DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F012B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY RAKuney DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F012C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 12/217'/(see comments) | M.R./M.R. Item # M-231/22.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By A. Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F012C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F012C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F012C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F012C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F012D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 12/217'/(see comments) | M.R./M.R. Item # M-231/22.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	- 1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By P.A. Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F012D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F012D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F012D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation materi·l capability.

PLANT I. D. XV-43-1F012D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY R A Cervar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F040A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/23.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By PAKumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

Form #1 EQRR # 25 Sheet 1 of 5

PLANT I. D. XV-43-1F040A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F040A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F040A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	5	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F040A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY [signature] DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D.	XV-43-1F040B	Description	Flow Limiting Valve	Equip. Manuf.	Marotta
System/CCP	Reactor Recirculation/032	Area/Elev./Rm. #	16/217'/(see comments)	M.R./M.R. Item #	M-231/23.1
Ref. Dwg. #	P&ID M-43 Rev. 14	Foreign Print #	8031-M-231-1-10	P.O. #	M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By PA Cuevas Date 11/29/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82)

PLANT I. D. XV-43-1F040B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F040B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A.K. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F040B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F040B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F040C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 11/217'/(see comments) | M.R./M.R. Item # M-231/23.1

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/19/83

Prepared By D. Sexton | Date 8/19/83

Reviewed By P.A. Kumar | Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F040C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.K. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F040C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.K. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE ^ yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F040C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY [signature] DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 Yrs (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

Form #2 EQRR # 27 SHEET 4 OF 5

PLANT I. D. XV-43-1F040C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400 °F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-43-1F040D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 16/217'/(see comments) | M.R./M.R. Item # M-231/23.1

Ref. Dwg. # P&ID M-43 Rev. 14 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	120	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Camma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By R Kumar Date 11/29/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-43-1F040D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	-	-	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PA Keenan DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE

NON-METALLIC PART EQ STATUS

COMMENTS

PLANT I. D. XV-43-1F040D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

Form #2 EQRR # 28 SHEET 3 OF 5

PLANT I. D. XV-43-1F040D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY P.A. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 years Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-43-1F040D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400° F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. 1004A | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # /247/Z-5 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	150	1	330	1
Pressure (PSIG)	1500	3	.75	1	44.0	1
Radiation (Rads)	8.83×10^6 *	70 & 71	8.8×10^6 (Gamma) 5.5×10^6 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/19/83

Prepared By D. Sexton Date 8/19/83

Reviewed By P.K. Kumar Date 11/29/83

Comments Valve subject to chemical spray.

* Accident & Normal Gamma

PLANT I. D. 1004A

DESCRIPTION Check Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	-	-	Parts #20 and #28 are not valve parts. They will be removed before valve is installed; no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-P114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1004B | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Reactor Recirculation/032 | Area/Elev./Rm. # 247/Z-5 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. #P&ID M-43 Rev. 14 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	586	3	150	1	330	1
Pressure (PSIG)	1500	3	.75	1	44.0	1
Radiation (Rads)	8.83×10^6 *	70 & 71	8.8×10^6 (Gamma) 5.5×10^6 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/19/83

Prepared By D. Sexton | Date 8/19/83

Reviewed By PAKumar | Date 11/29/83

Comments Valve subject to chemical spray.

* Accident & Normal Gamma

PLANT I. D. 1004B

DESCRIPTION Check Valve

SYSTEM/CCP Reactor Recirculation/032

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	-	-	Parts #20 and #28 are not valve parts. They will be removed before valve is installed; no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-P114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. FV-50-113 Description Governing Globe Valve Equip. Manuf. Terry

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/177'/108 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-50 Rev. 13 Foreign Print # 8031-M-1-E51-C002-B-3.3 P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	115	1
Pressure (PSIG)	1115	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	2.98×10^5* 3.6×10^9**	71 & 80	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 1 Date 12/6/83 *Accident & Normal Gamma

Prepared By Alan Gil Date 12/6/83 **Accident Beta

Reviewed By P.R. Raty Date 12/9/83

PLANT I. D. FV-50-113

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Governing Globe Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	1 (RI-15L)	304SS & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R.R. Daly DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E51-C002-B-4.5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. HV-50-112 Description Motor Op. Globe Valve Equip. Manuf. _____

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/177'/108 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-50 Rev.13 Foreign Print # _____ P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	115	1
Pressure (PSIG)	1115	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	2.98×10^5* 3.6×10^9**	71 & 80	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/6/83 * Accident & Normal Gamma

Prepared By Alan Gil Date 12/6/83 **Accident Beta

Reviewed By P2R Qaly Date 12/9/83

Form #1 EQRR # 2 Sheet 1 of ___

Plant I.D. HV-49-1F002 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/20'/203 M.R./M.R. Item # P-114A/9.1

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-114A-67-4 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	190	3	115	1	115	1
Pressure (PSIG)	48	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	2.98×10^5* 3.6×10^9**	71 & 80	5.09×10^5	1	4.78×10^6 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By B.R. Caty Date 12/9/83

Comments

* Accident & Normal Gamma

**Accident Beta

Form #1 EQRR # 3 Sheet 1 of 2

PLANT I. D. HV-49-1F002

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	31	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY B. C. Raty DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-67-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D. HV-49-1F007 Description Motor Op. Globe Valve Equip. Manuf. Anchor/Darling

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 16/203'/Z-4 M.R./M.R. Item # P-104C/22.1

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-104C-37-7 P.O. # P-104C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	150	1	340	1
Pressure (PSIG)	1250	3	75	1	44	1
Radiation (Rads)	1.40×10^7 * 3.8×10^9 **	71 & 80	1.8×10^7 (Gamma) 55×10^6 (Neutron)	1	1.37×10^7 (Gamma) 1.97×10^8 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	45	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By [signature] Date 12/9/83

Comments Valve subject to chemical spray

* Accident & Normal Gamma

**Accident Beta

PLANT I. D. HV-49-1F007

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	7	John Crane 1871	TEMPERATURE (°F)	1200	81	
Lower Packing	10		PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 12/7/83

PREPARED BY B.R. Patel DATE 12/7/83

REVIEWED BY D. Stara DATE 12/9/83

FOREIGN PRINT # 8031-P-104C-37-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-49-1F008 Description Motor Op. Globe Valve Equip. Manuf. Anchor/Darling

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 16/203'/309 M.R./M.R. Item # P-104C/22.3

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-104C-37-7 P.O. # P-104C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1250	3	-1/4" W.g.	1	1.4	1
Radiation (Rads)	3.46×10^5* 3.6×10^9**	71 & 80	8.46×10^5	1	4.72×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	45	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 1 Date 12/6/83 * Accident & Normal Gamma

Prepared By Alan Gil Date 12/6/83 **Accident Beta

Reviewed By P&R Paty Date 12/9/83

Form #1 EQRR # 5 Sheet 1 of 2

PLANT I. D. HV-49-1F008 DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/031 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	7	John Crane 187I	TEMPERATURE (°F)	1200	81	
Lower Packing	10		PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 12/7/83

PREPARED BY B.R. Patel DATE 12/7/83

REVIEWED BY D. Lenn DATE 12/9/83

FOREIGN PRINT # 8031-P-104C-37-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-49-1F010 Description Motor Op. Gate Valve Equip. Manuf. Velan

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/177'/108 M.R./M.R. Item # P-102C/5.7

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-102C-33 P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	125	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	4.84×10^5 (Gamma)	1	1.90×10^6 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By [signature] Date 11/30/83

PLANT I. D. HV-49-1F010 — DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 — REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Pate DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-33-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-49-1F010

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)		

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Pate DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-33-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. HV-49-1F012 Description Motor Op. Gate Valve Equip. Manuf. Velan

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/201'/200 M.R./M.R. Item # P-104B/3.9

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-104B-2-15 P.O. # P-104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	120	1	120	1
Pressure (PSIG)	1325	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^5 (Accident Gamma)	70	7.0×10^5 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	45	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By P.R. Paty Date 12/9/83

PLANT I. D. HV-49-1F012

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	17	John Crane 1871	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 12/7/83

PREPARED BY B.R. Patel DATE 12/7/83

REVIEWED BY D. Lepre DATE 12/9/83

FOREIGN PRINT # 8031-P-104B-2-15

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-49-1F013 Description Motor Op. Gate Valve Equip. Manuf. Velan

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 11/283'/407 M.R./M.R. Item # P-104B/3.9

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-104B-2-15 P.O. # P-104B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	120	1	1	1
Pressure (PSIG)	1777	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^5 (Accident Gamma)	70	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	45	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By R22 Patel Date 12/9/83

PLANT I. D. HV-49-15013

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	17	John Crane 187I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 12/7/83

PREPARED BY B.R. Patel DATE 12/7/83

REVIEWED BY D. Lewis DATE 12/9/83

FOREIGN PRINT # 8031-P-104B-2-15

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. HV-49-1F019 Description Motor Op. Globe Valve Equip. Manuf. Anchor/Darling

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/177'/108 M.R./M.R. Item # M-001/

Ref. Dwg. # PID M-49 Rev.16 Foreign Print # 8031-M-1-E51-F019-B-1.4 P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	1325	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5	1	1.90×10^6 (Gamma) $1,77 \times 10^4$ (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By R.D. Paty Date 11/30/83

PLANT I. D. HV-49-1F019 DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R.R. Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E51-F019-B-1.4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-49-1F019 — DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 — REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/?/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY B R Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E51-F019-B-1.4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D. HV-49-1F022 Description Motor Op. Globe Valve Equip. Manuf. Anchor/Darling

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 11/201'/200 M.R./M.R. Item # P-104C/5.11

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-104C-3-4 P.O. # P-104C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	120	1	120	1
Pressure (PSIG)	1325	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^5 (Gamma)	70	7.0×10^5 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	45	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By D.R. Paty Date 11/30/83

PLANT I. D. HV-49-1F022

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	--	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-104C-3-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-49-1F022 DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Raty DATE 11/30/83

FOREIGN PRINT # 8031-P-104C-3-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D.	HV-49-1F025	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/177'/108	M.R./M.R. Item #	P-114A/7.1
Ref. Dwg. #	PID M-49 Rev.16	Foreign Print #	8031-P-114A-108-1	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	222	1
Pressure (PSIG)	1115	3	-1/4" W.g.	1	2.7	1
Radiation (Rads)	1.1×10^{9} ** 2.11×10^{5} *	71 & 80	4.84×10^{5} (Gamma)	1	8.76×10^{4} (Gamma) 5.91×10^{2} (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident & Normal Gamma

**Accident Beta

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By [signature] Date 12/9/83

Form #1 EQRR # 11

PLANT I. D. HV-49-1F025

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	—	—	Part removed prior to valve installation performs no safety function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-49-1F025 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-49-1F025

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lepon DATE 12/9/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-49-1F026	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/177'/108	M.R./M.R. Item #	P-114A/7.1
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-P-114A-108-1	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	222	1
Pressure (PSIG)	1115	3	-1/4" W.g.	1	2.7	1
Radiation (Rads)	1.1×10^{9}** 2.11×10^{5}*	71 & 80	4.84×10^{5} (Gamma)	1	8.76×10^{7} (Gamma) 5.91×10^{2} (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	1	Date	12/6/83		* Accident & Normal Gamma
Prepared By	Alan Gil	Date	12/6/83		**Accident Beta
Reviewed By	BB Paty	Date	12/9/83		

PLANT I. D. HV-49-1F026

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	—	—	Part removed prior to valve installation performs no safety function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-49-1F026 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Fatty DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-49-1F026

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Sean DATE 12/9/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-49-1F029	Description	Motor Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/201'/108	M.R./M.R. Item #	P-102C/5.9
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-P-102C-33-11	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ Condition	Reference Code Number	(#3) Accident Ambient Environ Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	125	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	8/23/83		
Prepared By	Alan Gil	Date	8/23/83		
Reviewed By	M R Paty	Date	11/30/83		

PLANT I. D. HV-49-1F029 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.B. Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-33-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-49-1F029

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-33-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. HV-49-1F031 Description Motor Op. Gate Valve Equip. Manuf. Velan

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/177'/108 M.R./M.R. Item # P-102C/5.11

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-102C-33-11 P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	125	3	- /4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By P2R Paty Date 11/30/83

PLANT I. D. HV-49-1F031

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY B R Faty DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-33-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Materials capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-49-1F031 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P102C-33-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-50-1F045	Description	Motor Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/177'/108	M.R./M.R. Item #	P-104C/5.7
Ref. Dwg. #	P&ID M-50 Rev.13	Foreign Print #	8031-P-104C-1-5	P.O. #	P-104C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	222	1
Pressure (PSIG)	1115	3	-1/4" W.g.	1	2.7	1
Radiation (Rads)	3.6×10^9 ** 2.98×10^5 *	71 & 80	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	45	6 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	1	Date	12/6/83		* Accident & Normal Gamma
Prepared By	Alan Gil	Date	12/6/83		**Accident Beta
Reviewed By	Bob Raty	Date	12/9/83		

PLANT I. D. HV-50-1F045

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Motor Operated Globe Valve

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-104C-1-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-50-1F045 DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-104C-1-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D. HV-50-1F046 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/177'/108 M.R./M.R. Item # P-114A/9.3

Ref. Dwg. # PID M-50 Rev.13 Foreign Print # 8031-P-114A-44-6 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	1325	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By B.R. Paty Date 11/30/83

PLANT I. D. HV-50-1F046 — DESCRIPTION Motor Operated Globe Valve

Reactor Core

SYSTEM/CCP Isolation Cooling/034 — REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D.	HV-49-1F060	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/201'/289	M.R./M.R. Item #	P-103/3.7
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-P-103-10-7	P.O. #	P-103

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	268	3	115	1	296	1
Pressure (PSIG)	160	3	-1/4" W.g.	1	5.3	1
Radiation (Rads)	3.6×10^9 ** 2.98×10^5 *	71 & 80	4.84×10^5 (Gamma)	1	1.23×10^5 (Gamma) 1.23×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	44	6 hours	2

Overall EQ Status	Acceptable (See Form #2)	Comments	HELB Accident Ambient Conditions
Revision #	1		* Accident & Normal Gamma
Prepared By	Alan Gil	Date 12/6/83	**Accident Beta
Reviewed By	P.R. Raby	Date 12/9/83	

PLANT I. D. HV-49-1F060

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A (see comments)	—	
			AGING ANALYSIS			

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R R Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-103-10-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-49-1F060 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Lower Packing	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R.R. Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-103-10-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-49-1F060 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Upper Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-103-10-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D.	HV-49-1F076	Description	Motor Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	16/217'/309	M.R./M.R. Item #	P-114A/9.5
Ref. Dwg. #	PID M-49 Rev.16	Foreign Print #	8031-P-114A-44-6	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	264	1
Pressure (PSIG)	1250	3	-1/4" W.g.	1	1.4	1
Radiation (Rads)	3.6×10^9** 2.98×10^5*	71 & 80	8.46×10^5 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	HELB Accident Ambient Conditions
Revision #	1	Date	12/6/83		* Accident & Normal Gamma
Prepared By	Alan Gil	Date	12/6/83		**Accident Beta
Reviewed By	[signature]	Date	12/9/83		

PLANT I. D. HV-49-1F076 DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY D R Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D. HV-49-1F080 Description Motor Op. Gate Valve Equip. Manuf. Anchor/Darling

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/201'/203 M.R./M.R. Item # P-102A/5.23

Ref. Dwg. # PID M-49 Rev.16 Foreign Print # 8031-P-102A-130-4 P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	268	3	115	1	115	1
Pressure (PSIG)	160	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^5 (Accident Gamma)	70	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By [signature] Date 11/30/83

Form #1 EQRR # 19 Sheet 1 of 4

PLANT I. D. HV-49-1F080

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY B R Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-130-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-49-1F080 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY B R Doty DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-130-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-49-1F080

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R.R. Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-130-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

Plant I.D. HV-49-1F084 Description Motor Op. Gate Valve Equip. Manuf. Anchor/Darling

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/201'/203 M.R./M.R. Item # P-102A/5.23

Ref. Dwg. # PID M-49 Rev.16 Foreign Print # 8031-P-102A-130-4 P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	268	3	115	1	115	1
Pressure (PSIG)	160	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.1×10^{9}** 2.98×10^{5}*	71 & 80	5.09×10^{5} W.g.	1	1.18×10^{5} (Gamma) 5.91×10^{2} (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 1 Date 12/6/83 * Accident & Normal Gamma

Prepared By Alan Gil Date 12/6/83 **Accident Beta

Reviewed By [signature] Date 12/9/83

PLANT I. D. HV-49-1F084

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R R Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-130-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-49-1F084 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-130-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-49-1F084

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	--	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-130-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D.	LV-50-110	Description	Level Control Valve	Equip. Manuf.	Rockwell
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/177'/108	M.R./M.R. Item #	P-114A/7.49
Ref. Dwg. #	P&ID M-50 Rev.13	Foreign Print #	8031-P-114A-109-2	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	268	3	115	1	115	1
Pressure (PSIG)	160	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	3.6×10^{9}** 2.98×10^{5}*	71 & 80	4.84×10^{5} (Gamma)	1	1.90×10^{5} (Gamma) 1.77×10^{4} (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 1 Date: 12/6/83

Prepared By: Alan Gil Date: 12/6/83

Reviewed By: [signature] Date: 12/9/83

Comments

* Accident & Normal Gamma

**Accident Beta

PLANT I. D. LV-50-110

DESCRIPTION Level Control Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	—	—	Part removed prior to valve installation performs no safety function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY B R Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-109-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. LV-50-110

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Level Control Valve

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-109-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

PLANT I. D. LV-50-110

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Seton DATE 12/9/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D.	LV-49-1F054	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/177'/108	M.R./M.R. Item #	P-114A/7.45
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-P-114A-108-1	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	115	1
Pressure (PSIG)	1115	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	3.6×10^9 ** 2.98×10^5 *	71 & 80	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	1	Date	12/6/83		* Accident & Normal Gamma
Prepared By	Alan Gil	Date	12/6/83		**Accident Beta
Reviewed By	R R Paty	Date	12/9/83		

PLANT I. D. LV-49-1F054

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	—	—	Part removed prior to valve installation performs no safety function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. LV-49-1F054

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Paty DATE 11/30/83

FOREIGN PRINT # 8031-P-114A-108-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. LV-49-1F054

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lehn DATE 12/9/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D. PCV-50-JF015	Description Pressure Control Valve	Equip. Manuf. TRC
System/CCP Reactor Core Isolation Cooling/034	Area/Elev./Rm. # 15/177'/108	M.R./M.R. Item # M-241/1.1
Ref. Dwg. # P&ID M-50 Rev.13	Foreign Print # 8031-M-241-8-6	P.O. # M-241

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	1325	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	3.6×10^9** 2.98×10^5*	71 & 80	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status	Acceptable (See Form #2)	Comments	
Revision #	1	Date	12/6/83
Prepared By	Alan Gil	Date	12/6/83
Reviewed By	B R Paty	Date	12/9/83

* Accident & Normal Gamma

**Accident Beta

PLANT I. D. PCV-50-1F015

DESCRIPTION Pressure Control Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Rings	26,27,28 29,30, & 39	Silicone Rubber	TEMPERATURE (°F)	450	72,74	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$5x10^7$	67,68	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY BRLaty DATE 11/30/83

FOREIGN PRINT # 8031-M-241-8-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed service condition requirements

PLANT I. D. PCV-50-1F015

DESCRIPTION Pressure Control Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal Ring	38	Polyamide	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^6	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.B. Baty DATE 11/30/83

FOREIGN PRINT # 8031-M-241-8-6

RECOMMENDED REPLACEMENT SCHEDULE Every 4 years

NON-METALLIC PART EQ STATUS Acceptable, with recommended replacement schedule

COMMENTS Replacement at least every 4 years will always keep the radiation sustained below the material capability.

Plant I.D. XV-49-1F044A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Core Isolation Cooling/034 | Area/Elev./Rm. # 16/217'/(see comments) | M.R./M.R. Item # M-231/26.2

Ref. Dwg. # P&ID M-49 Rev.16 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By [signature] Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-49-1F044A
Reactor Core
SYSTEM/CCP Isolation Cooling/034

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	—	—	This part is the gasket between the proximity (position) switch and the valve body and performs no safety mechanical function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R.R. Raty DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-49-1F044A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY D.A. Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-49-1F044A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R.A. Patey DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-49-1F044A

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-49-1F044B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Core Isolation Cooling/034 | Area/Elev./Rm. # 16/217'/(see comments) | M.R./M.R. Item # M-231/26.2

Ref. Dwg. # P&ID M-49 Rev.16 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/23/83

Prepared By Alan Gil | Date 8/23/83

Reviewed By [signature] | Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-49-1F044B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	—	—	This part is the gasket between the proximity (position) switch and the valve body and performs no safety mechanical function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY for Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-49-1F044B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY M R Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-49-1F044B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P&R Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-49-1F044B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P2R Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-49-1F044C | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Core Isolation Cooling/034 | Area/Elev./Rm. # 16/217'/(see comments) | M.R./M.R. Item # M-231/26.2

Ref. Dwg. # P&ID M-49 Rev.16 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	$4,78 \times 10^6$ (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 8/23/83

Prepared By Alan Gil | Date 8/23/83

Reviewed By [signature] | Date 11/30/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-49-1F044C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	—	—	This part is the gasket between the proximity (position) switch and the valve body and performs no safety mechanical function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY B R Patel DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-49-1F044C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R R Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-49-1F044C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Patey DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-49-1F044C

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Patey DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Material capabilities exceed required conditions.

Plant I.D. XV-49-1F044D | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Reactor Core Isolation Cooling/034 | Area/Elev./Rm. # 16/217'/(see comments) | M.R./M.R. Item # M-231/26.2

Ref. Dwg. # P&ID M-49 Rev.16 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	120	1	120	1
Pressure (PSIG)	1250	3	-1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	40	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By R.R. Paty Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above (ref. 82).

PLANT I. D. XV-49-1F044D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	—	—	This part is the gasket between the proximity (position) switch and the valve body and performs no safety mechanical function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R R Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. XV-49-1F044D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY Safety DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-49-1F044D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 years at 120°F	76	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-49-1F044D

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on Replacement Schedule).

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 1017 Description Check Valve Equip. Manuf. Velan

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/201'/289 M.R./M.R. Item # P-102C/13.17

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-102C-3-14 P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	268	3	115	1	115	1
Pressure (PSIG)	160	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.23×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By [signature] Date 11/30/83

PLANT I. D. 1017

DESCRIPTION Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. & Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 1018 Description Check Valve Equip. Manuf. Velan

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/201'/289 M.R./M.R. Item # P-102C/13.17

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-102C-3-14 P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	268	3	115	1	115	1
Pressure (PSIG)	160	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.23×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By [signature] Date 11/30/83

Form #1 EQRR # 29 Sheet 1 of 2

PLANT I. D. 1018

DESCRIPTION Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. & Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY R R Paby DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 10P203 Description RCIC Pump Equip. Manuf. Bingham Pump Co.

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/177'/108 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-50 Rev.13 Foreign Print # 8031-M-1-E51-C001-H-3.2 P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	1325	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By [signature] Date 12/9/83

PLANT I. D. 10P203

DESCRIPTION Pump (Turbine Driven)

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	17,62, & 162	S.S. & Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-'-E51-C001-H-3.2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 10P203

DESCRIPTION Pump (Turbine Driven)

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	182	Garlock	TEMPERATURE (°F)	-	-	Part deterioration has no effect on safety functioning of pump. Only functions to ease separation of bearings during maintenance.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS			

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN DOCUMENT # 8031-M-1-E51-C001-H-3.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. 10P203

DESCRIPTION Pump (Turbine Driven)

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	13, 77, 78, 91	EPT	TEMPERATURE (°F)	See Comments	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.S. Gately DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E51-C001-H-3.2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds plant life plus end of life accident.

Plant I.D. 10S212 | Description Turbine | Equip. Manuf. Terry

System/CCP Reactor Core Isolation Cooling/034 | Area/Elev./Rm. # 15/177'/108 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-50 Rev.13 | Foreign Print # 8031-M-1-E51-C002-B-3.3 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	582	3	115	1	115	1
Pressure (PSIG)	1115	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	3.6×10^9** 2.98×10^5*	71 & 80	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By [signature] Date 12/9/83

Comments

* Accident & Normal Gamma

**Accident Beta

PLANT I. D. 10S212

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Turbine

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	67,69, & 70	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E51-C002-B-3.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F001	Description	Stop Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/201'/ 289	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-M-1-E51-F001-B.1-3	P.O. #	M001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	268	3	115	1	115	1
Pressure (PSIG)	160	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	3.6×10^9** 2.98×10^5*	71 & 80	8.46×10^5	1	1.23×10^5* 1.77×10^4**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	1	Date	12/6/83		* Accident & Normal Gamma
Prepared By	Alan Gil	Date	12/6/83		**Accident Beta
Reviewed By	[signature]	Date	12/9/83		

PLANT I. D. 1F001

DESCRIPTION Stop Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E51-F001-B-1.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1F001

DESCRIPTION Stop Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18A	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY M.R. Paty DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E51-F001-B-1·3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1F001

DESCRIPTION Stop Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, &3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY P.R. Raby DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E51-F001-B-1.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (ref. 81)

Plant I.D.	1F011	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/177'/108	M.R./M.R. Item #	P-102C/13.7
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-P-102C-4-10	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	125	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	8/23/83		
Prepared By	Alan Gil	Date	8/23/83		
Reviewed By	B R Paty	Date	11/30/83		

PLANT I. D. 1F011

DESCRIPTION Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	--	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-4-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F014	Description	Check Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/201'/200	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-M-1-E51-F014C-1·3	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	120	1	120	1
Pressure (PSIG)	1325	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	7.0×10^5 (Gamma)	1	3.74×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2) Comments:

Revision #: 0 Date: 8/23/83

Prepared By: Alan Gil Date: 8/23/83

Reviewed By: P2Rlaty Date: 11/30/83

PLANT I. D. 1F014

DESCRIPTION Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY T.R. Raby DATE 11/30/83

FOREIGN PRINT # 1031-M-1-E51-F014-C-1.3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1F014

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Check Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18A	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY PSR Safety DATE 11/30/83

FOREIGN PRINT # 8031-M-1-E51-F014-C-1·3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 1F021 Description Check Valve Equip. Manuf. Rockwell

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/177'/103 M.R./M.R. Item # P-114A/4.1

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-114A-5-10 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	1325	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.90×10^6 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status Acceptable (No non-metallic parts) Comments

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By [signature] Date 12/9/83

Form #1 EQRR # 35 Sheet 1 of 1

Plant I.D.	1F028	Description	Check Valve	Equip. Manuf.	Rockwell
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/177'/108	M.R./M.R. Item #	P-11A/6.1
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-P-114A-2-8	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	190	3	115	1	115	1
Pressure (PSIG)	48	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	3.6×10^9** 2.98×10^5*	71 & 80	4.84×10^5 (Gamma)	1	1.90×10^6 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident & Normal Gamma

**Accident Beta

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By [signature] Date 12/9/83

PLANT I. D. 1F028

DESCRIPTION Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	4	S. S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments	--	

REVISION # 0 DATE 12/8/83

PREPARED BY V. Pichai DATE 12/8/83

REVIEWED BY D. Lee DATE 12/9/83

FOREIGN PRINT # 8031-P-114A-2-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 1F030 Description Check Valve Equip. Manuf. Velan

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # 15/177'/108 M.R./M.R. Item # P-102C/13.7

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-102C-4-10 P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	125	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 hours	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/23/83

Prepared By Alan Gil Date 8/23/83

Reviewed By [signature] Date 11/30/83

PLANT I. D. 1F030

SYSTEM/CCP Reactor Core Isolation Cooling/034

DESCRIPTION Check Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	--	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-4-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F047	Description	Check Valve	Equip. Manuf.	Rockwell
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/180'/108	M.R./M.R. Item #	P-114A/4.1
Ref. Dwg. #	P&ID M-50 Rev.13	Foreign Print #	8031-P-114A-5-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	115	1	115	1
Pressure (PSIG)	125	3	-1/4" W.g	1	Atmosphere	1
Radiation (Rads)	3.6×10^{9}** 2.98×10^{5}*	71 & 80	4.84×10^{5} (Gamma)	1	1.90×10^{5} (Gamma) 1.77×10^{4} (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status: Acceptable (No non-metallic parts)

Revision #: 1 Date: 12/6/83

Prepared By: Alan Gil Date: 12/6/83

Reviewed By: [signature] Date:

Comments:

* Accident & Normal Gamma

** Accident Beta

Form #1 EQRR # 38 Sheet 1 of 1

Plant I.D.	1F064	Description	Check Valve	Equip. Manuf.	Rockwell
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	/269'/518	M.R./M.R. Item #	P-114A/4.1
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-P-114A-5-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	120	1	120	1
Pressure (PSIG)	1325	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	1.35×10^6	1	4.71×10^5* 1.77×10^4**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status: Acceptable (No non-metallic parts)

Revision # 1 Date 12/6/83

Prepared By Alan Gil Date 12/6/83

Reviewed By [signature] Date

Comments: * Accident Gamma
**Accident Beta

Plant I.D. 1F065 Description Check Valve Equip. Manuf. Rockwell

System/CCP Reactor Core Isolation Cooling/034 Area/Elev./Rm. # /269'/518 M.R./M.R. Item # P-114A/4.1

Ref. Dwg. # P&ID M-49 Rev.16 Foreign Print # 8031-P-114A-5-10 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	120	1	120	1
Pressure (PSIG)	1325	3	-1/4" W.g	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	1.35×10^6 (Gamma)	1	4.71×10^5* 1.77×10^4**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status Acceptable (No non-metallic parts) Comments *Accident Gamma

Revision # 1 Date 12/6/83 **Accident Beta

Prepared By Alan Gil Date 12/6/83

Reviewed By P.B. Raby Date 12/9/83

Plant I.D.	1F068	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/201'/289	M.R./M.R. Item #	P-102C/13.17
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	268	3	115	1	115	1
Pressure (PSIG)	160	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.23×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision #: 0 Date: 8/23/83

Prepared By: Alan Gil Date: 8/23/83

Reviewed By: B.R. Fahy Date: 11/30/83

Form #1 EQRR # 41 Sheet 1 of 2

PLANT I. D. 1F068 DESCRIPTION Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	1F081	Description	Check Valve	Equip. Manuf.	Velan
System/CCP	Reactor Core Isolation Cooling/034	Area/Elev./Rm. #	15/201'/289	M.R./M.R. Item #	P-102/13.17
Ref. Dwg. #	P&ID M-49 Rev.16	Foreign Print #	8031-P-102C-3-14	P.O. #	P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	268	3	115	1	115	1
Pressure (PSIG)	160	3	-1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	4.84×10^5 (Gamma)	1	1.23×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision #: 0 Date: 8/23/83

Prepared By: Alan Gil Date: 8/23/83

Reviewed By: [signature] Date: 11/30/83

PLANT I. D. 1F081

DESCRIPTION Check Valve

SYSTEM/CCP Reactor Core Isolation Cooling/034

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments)	—	

REVISION # 0 DATE 11/3/83

PREPARED BY V. Pichai DATE 11/3/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-3-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. HV-48-1F006A | Description Motor Operated Stop Check Valve | Equip. Manuf. Rockwell

System/CCP Standby Liquid Control/035 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # P-114A/10.3

Ref. Dwg. # P&ID M-48, Rev. 10 | Foreign Print # 8031-P-114A-204-4 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	598	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/1" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	2.55×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 1 | Date 12/6/83

Prepared By Alan Gil | Date 12/6/83

Reviewed By A Kumar | Date 12/8/83

PLANT I. D. HV-48-1F006A

DESCRIPTION Motor Op. Stop Check Globe Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	6	S. S. and asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lepa DATE 12/8/83

FOREIGN PRINT # 8031-P-114A-204-4

RECOMMENDLD REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-48-1F006A

DESCRIPTION Motor Op Stop Check Globe Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	7	Graphite	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lehm DATE 12/8/83

FOREIGN PRINT # 8031-P-114A-204-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. HV-48-1F006B | Description Motor Operated Stop Check Valve | Equip. Manuf. Rockwell

System/CCP Standby Liquid Control/035 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # P114A/10.3

Ref. Dwg. # P&ID M-48, Rev. 10 | Foreign Print # 8031-P-114A-204-4 | P.O. # P114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	598	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	2.55×10^6 (Gamma) 1.0×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 1 | Date 12/6/83

Prepared By Alan Gil | Date 12/6/83

Reviewed By A Kumar | Date 12/8/83

PLANT I. D. HV-48-1F006B

DESCRIPTION Motor Op. Stop Check Globe Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	6	S. S. and asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	--	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lepa DATE 12/8/83

FOREIGN PRINT # 8031-P-114A-204-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-48-1F006B

DESCRIPTION Motor Op Stop Check Globe Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	7	Graphite	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lehr DATE 12/8/83

FOREIGN PRINT # 8031-P-114A-204-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. PSV-48-1F029A | Description Pressure Relief Valve | Equip. Manuf. Crosby

System/CCP Standby Liquid Control/035 | Area/Elev./Rm. # 16/283'/500 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-48, Rev. 10 | Foreign Print # 8031-M-1-C41-F029-C-1.1 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	2.43×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Acceptable (see Form #2) | Comments

Revision # 0 | Date 8/24/83

Prepared By Alan Gil | Date 8/24/83

Reviewed By Kumar | Date 11/29/83

PLANT I. D. PSV-48-1F029A

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	20	Viton-A	TEMPERATURE (°F)	See Aging Calculation	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.6×10^7	73	
			HUMIDITY (%).	N/A	27	
			AGING ANALYSIS	See Comments	74 & 86	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY RAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C41-F029-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. PSV-48-1F029B | Description Pressure Relief Valve | Equip. Manuf. Crosby

System/CCP Standby Liquid Control/035 | Area/Elev./Rm. # 16/283'/500 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-48, Rev. 10 | Foreign Print # 8031-M-1-C41-F029-C-1.1 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	2.43×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Acceptable (see Form #2) | Comments

Revision # 0 | Date 8/24/83

Prepared By Alan Gil | Date 8/24/83

Reviewed By A.H. Kumar | Date 11/29/83

PLANT I. D. PSV-48-1F029B

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	20	Viton-A	TEMPERATURE (°F)	See Aging Calculation	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.6×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	74 & 86	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C41-F029-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. PSV-48-1F029C | Description Pressure Relief Valve | Equip. Manuf. Crosby

System/CCP Standby Liquid Control/035 | Area/Elev./Rm. # 16/283'/500 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-48, Rev. 10 | Foreign Print # 8031-M-1-C41-F029-C-1.1 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	2.43×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 0 | Date 8/24/83

Prepared By Alan Gil | Date 8/24/83

Reviewed By PAKumar | Date 11/29/83

PLANT I. D. PSV-48-1F029C

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	20	Viton-A	TEMPERATURE (°F)	See Aging Calculation	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.6×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	74 & 86	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY PAKewar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C41-F029-C-1.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. XV-48-1F004A | Description Explosive Op. Gate Valve | Equip. Manuf. _____

System/CCP Standby Liquid Control/035 | Area/Elev./Rm. # 15/253'/500 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-48, Rev. 10 | Foreign Print # _____ | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	9.43×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	58	1 hour	2

Overall EQ Status _____ | Comments _____

Revision # 0 | Date 8/24/83

Prepared By Alan Gil | Date 8/24/83

Reviewed By AKumar | Date 11/29/83

Plant I.D. XV-48-1F004B Description Explosive Op. Gate Valve Equip. Manuf. _____

System/CCP Standby Liquid Control/035 Area/Elev./Rm. # 15/253'/500 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-48, Rev. 10 Foreign Print # _____ P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	9.43×10^4 (Gamma) 5.94×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	58	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/24/83

Prepared By Alan Gil Date 8/24/83

Reviewed By RAKuman Date 11/29/83

Form #1 EQRR # 7 Sheet 1 of ___

Plant I.D. XV-48-1F004C Description Explosive Op. Gate Valve Equip. Manuf. _____

System/CCP Standby Liquid Control/035 Area/Elev./Rm. # 15/253'/500 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-48, Rev. 10 Foreign Print # _____ P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	9.43×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	58	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/24/83

Prepared By Alan Gil Date 8/24/83

Reviewed By P.K. Kumar Date 11/29/83

Plant I.D. 1AP208 Description SLC Injection Pump Equip. Manuf. _____

System/CCP Standby Liquid Control/035 Area/Elev./Rm. # 16/283'/500 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-48, Rev. 10 Foreign Print # _____ P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	2.43×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/24/83

Prepared By Alan Gil Date 8/24/83

Reviewed By [signature] Date 11/29/83

Form #1 EQRR # 9 Sheet 1 of ___

Plant I.D. 1BP208 Description SLC Injection Pump Equip. Manuf.

System/CCP Standby Liquid Control/035 Area/Elev./Rm. # 16/283'/500 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-48, Rev. 10 Foreign Print # P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	2.43×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Comments

Revision # 0 Date 8/24/83

Prepared By Alan Gil Date 8/24/83

Reviewed By A Kumar Date 11/29/83

Form #1 EQRR # 10 Sheet 1 of

Plant I.D. 1CP208 Description SLC Injection Pump Equip. Manuf.

System/CCP Standby Liquid Control/035 Area/Elev./Rm. # 16/283'/500 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-48, Rev. 10 Foreign Print # P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	2.43×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	8 days	2

Overall EQ Status Comments

Revision # 0 Date 8/24/83

Prepared By Alan Gil Date 8/24/83

Reviewed By A Kumar Date 11/29/83

Form #1 EQRR # 11 Sheet 1 of ___

Plant I.D. 1F007 Description Check Valve Equip. Manuf. Borg Warner

System/CCPStandby Liquid Control/035 Area/Elev./Rm. # /283'/Z-2 M.R./M.R. Item # P-114B/5.1

Ref. Dwg. # P&ID M-48 Rev. 10 Foreign Print # 8031-P-114B-21-12 P.O. # P114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	598	3	150	1	330	1
Pressure (PSIG)	1500	3	.75	1	44.0	1
Radiation (Rads)	$4x10^6$ (Normal Gamma)	71	$8.4x10^6$ (Gamma) $1.2x10^7$ (Neutrons)	1	$3.03x10^7$ (Gamma) $6.05x10^8$ (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Acceptable (See Form #2) Comments Subject to chemical spray

Revision # 0 Date 8/24/83

Prepared By Alan Gil Date 8/24/83

Reviewed By AAKumar Date 11/29/83

PLANT I. D. 1F007 DESCRIPTION Check Valve

SYSTEM/CCP Standby Liquid Control/035 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%).	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-P114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F033A Description Check Valve Equip. Manuf. Borg Warner

System/CCP Standby Liquid Control/035 Area/Elev./Rm. # 16 / 285' / 500 M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-48, Rev. 10 Foreign Print # 8031-P-114B-21-12 P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	2.43×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 8/24/83

Prepared By Alan Gil Date 8/24/83

Reviewed By PAKumar Date 11/29/83

PLANT I. D. 1F033A

DESCRIPTION Check Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY Akeman DATE 11/29/83

FOREIGN PRINT # 8031-P114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F033B | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Standby Liquid Control/035 | Area/Elev./Rm. # 16/285'/ 500 | M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-48, Rev. 10 | Foreign Print # 8031-P-114B-21-12 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	2.43×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 0 | Date 8/24/83

Prepared By Alan Gil | Date 8/24/83

Reviewed By AAKumar | Date 11/29/83

PLANT I. D. 1F033B

DESCRIPTION Check Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY J Kumar DATE 11/29/83

FOREIGN PRINT # 8031-P114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1F033C | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Standby Liquid Control/035 | Area/Elev./Rm. # 16/285'/506 | M.R./M.R. Item # P-114B/5.3

Ref. Dwg. # P&ID M-48, Rev. 10 | Foreign Print # 8031-P-114B-21-12 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	1500	3	-1/4" W.G.	1	Atmos.	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	2.43×10^6 (Gamma) 1.01×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	11 days	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 0 | Date 8/24/83

Prepared By Alan Gil | Date 8/24/83

Reviewed By [signature] | Date 11/29/83

PLANT I. D. 1F033C

DESCRIPTION Check Valve

SYSTEM/CCP Standby Liquid Control/035

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	--	--	Parts #20 and 18 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	18	Polyethylene	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/3/83

PREPARED BY B. R. Patel DATE 10/3/83

REVIEWED BY Patterson DATE 11/29/83

FOREIGN PRINT # 8031-P114B-21-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. PSE-47-1-32 Description Pressure Relief Element Equip. Manuf.

System/CCP Control Rod Drive Hydraulic/036 Area/Elev./Rm. # 11/253'/402 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-47 Rev. 9 Foreign Print # P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	400	89	104	1	102	1
Pressure (PSIG)	1167	88	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status Comments Typical, 1 per HCU

Revision # 0 Date 8/25/83

Prepared By Alan Gil Date 8/25/83

Reviewed By A Kumar Date 11/29/83

Form #1 EQRR # 1 Sheet 1 of

Plant I.D. XV-47-1-26 Description Air Op. Globe Valve Equip. Manuf.

System/CCP Control Rod Drive Hydraulic/036 Area/Elev./Rm. # 11/253'/402 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-47 Rev. 9 Foreign Print # P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ Condition	Reference Code Number
Temperature (°F)	400	89	104	1	120	1
Pressure (PSIG)	1167	88	-1/4"w.g.	1	Atomosphere	1
Radiation (Rads)	N/A	N/A	3.5×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status Comments Typical, 1 per HCU

Revision # 0 Date 8/25/83

Prepared By Alan Gil Date 8/25/83

Reviewed By AKumar Date 11/29/83

Plant I.D. XV-47-1-27 Description Air Op. Globe Valve Equip. Manuf.

System/CCP Control Rod Drive Hydraulic/036 Area/Elev./Rm. # 11/253/402 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-47 Rev. 9 Foreign Print # P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	400	89	104	1	120	1
Pressure (PSIG)	1020	88	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 *	70 & 71	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status

Revision # 0 Date 8/25/83

Prepared By Alan Gil Date 8/25/83

Reviewed By H Kuman Date 11/29/83

Comments Typical, 1 per HCU

* Normal & Accident Gamma

Form #1 EQRR # 3 Sheet 1 of

Plant I.D. XV-47-1F010 | Description Air Op. Globe Valve | Equip. Manuf. ITT-Hammel Dahl

System/CCP Control Rod Drive Hydraulic/036 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-47 Rev. 9 | Foreign Print # 3031-M-1-C11-F010-K-2.1 | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	450	3	104	1	120	1
Pressure (PSIG)	1250	3	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 *	70 & 71	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status Acceptable (See Form #2) | Comments * Normal & Accident Gamma

Revision # 0 | Date 8/25/83

Prepared By Alan Gil | Date 8/25/83

Reviewed By PA Kumar | Date 11/29/83

PLANT I. D. XV-47-1F010

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Bonnet Gasket	4	S.S. & Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V.Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

Form #2 EQRR # 4 SHEET 2 OF 8

PLANT I. D. XV-47-1F010 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet B-U Gasket	4G	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F010

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm	115	Buna-N & Nylon	TEMPERATURE (°F)	--	--	Diaphragm of the air operator is not required for fail-safe operation of the valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See rationale)

COMMENTS

PLANT I. D. XV-47-1F010

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Box O-Ring	122	Buna-N & Nylon	TEMPERATURE (°F)	--	--	Diaphragm of the air operator is not required for fail-safe operation of the valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See rationale)

COMMENTS

PLANT I. D. XV-47-1F010 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Crane	12B	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. XV-47-1F010

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	12A	Grafoil	TEMPERATURE (°F)	1200	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F010

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Gasket	4B	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

Form #2 EQRR # 4

Plant I.D.	XV-47-1F011	Description	Air Op Globe Valve	Equip. Manuf.	ITT-Hammel Dahl
System/CCP	Control Rod Drive Hydraulic/036	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-47 Rev. 9	Foreign Print #	8031-M-1-C11-F010-K-2.1	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	450	3	104	1	120	1
Pressure (PSIG)	1250	3	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 *	70 & 71	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Normal & Accident Gamma
Revision #	0	Date	8/25/83		
Prepared By	Alan Gil	Date	8/25/83		
Reviewed By	PAkmar	Date	11/29/83		

PLANT I. D. XV-47-1F011

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	4	S.S. & Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F011 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet B-U Gasket	4G	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F011 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm	115	Buna-N & Nylon	TEMPERATURE (°F)	--	--	Diaphragm of the air operator is not required for fail-safe operation of the valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY [signature] DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See rationale)

COMMENTS

PLANT I. D. XV-47-1F011 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Box O-Ring	122	Buna-N & Nylon	TEMPERATURE (°F)	--	--	Diaphragm of the air operator is not required for fail-safe operation of the valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See rationale)

COMMENTS

PLANT I. D. XV-47-1F011 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Crane	12B	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. XV-47-1F011 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	12A	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PA Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F011

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Gasket	4B	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

Plant I.D.	XV-47-1F180	Description	Air Op. Globe Valve	Equip. Manuf.	ITT-Hammel Dahl
System/CCP	Control Rod Drive Hydraulic/036	Area/Elev./Rm. #	15/253/402	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-47 Rev. 9	Foreign Print #	8031-M-1-C11-F010-K-2.1	P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	450	3	104	1	120	1
Pressure (PSIG)	1250	3	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 *	70 & 71	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^5 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Normal & Accident Gamma

Revision # 0 Date 8/25/83

Prepared By Alan Gil Date 8/25/83

Reviewed By PAKumar Date 11/29/83

PLANT I. D. XV-47-IF180 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	4	S.S. & Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A.A. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F180

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet B-U Gasket	4G	S.S. and Asbesto (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F180

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm	115	Buna-N & Nylon	TEMPERATURE (°F)	--	--	Diaphragm of the air operator is not required for fail-safe operation of the valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.K. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See rationale)

COMMENTS

PLANT I. D. XV-47-1F180

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Box O-Ring	122	Buna-N & Nylon	TEMPERATURE (°F)	--	--	Diaphragm of the operator is not required for fail-safe operation of the valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See rationale)

COMMENTS

PLANT I. D. XV-47-1F180

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Crane	12B	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. XV-47-1F180

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	12A	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.K. Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F180 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Gasket	4B	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

Plant I.D. XV-47-1F181 Description Air Op. Globe Valve Equip. Manuf. ITT-Hammel Dahl

System/CCP Control Rod Drive Hydraulic/036 Area/Elev./Rm. # 15/253'/402 M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-47 Rev. 9 Foreign Print # 8031-M-1-C11-F010-K-2.1 P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	450	3	104	1	120	1
Pressure (PSIG)	1250	3	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 *	70 & 71	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status Acceptable (See Form #2) Comments * Normal & Accident Gamma

Revision # 0 Date 8/25/83

Prepared By Alan Gil Date 8/25/83

Reviewed By AKumar Date 11/29/83

PLANT I. D. XV-47-1F181 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet Gasket	4	S.S. & Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C-11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE Non (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F181

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Bonnet B-U Gasket	4G	S.S & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F181 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm	115	Buna-N & Nylon	TEMPERATURE (°F)	--	--	Diaphragm of the air operator is not required for fail-safe operation of the valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See rationale)

COMMENTS

PLANT I. D. XV-47-1F181 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Box O-Ring	122	Buna-N & Nylon	TEMPERATURE (°F)	--	--	Diaphragm of the air operator is not required for fail-safe operation of the valve.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RAKuman DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See rationale)

COMMENTS

PLANT I. D. XV-47-1F181

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCF Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Crane	12B	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. XV-47-1F181

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	12A	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

PLANT I. D. XV-47-1F181

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Control Rod Drive Hydraulic/036

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Gasket	4B	Asbestos	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See Comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/29/83

FOREIGN PRINT # 8031-M-1-C11-F010-K-2.1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability far exceeds required conditions

Plant I.D.	1-14	Description	Check Valve	Equip. Manuf.	
System/CCP	Control Rod Drive Hydraulic/036	Area/Elev./Rm. #	11/253'/402	M.R./M.R. Item #	M-001/
Ref. Dwg. #	P&ID M-47 Rev. 9	Foreign Print #		P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	400	89	104	1	120	1
Pressure (PSIG)	1008	88	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 *	70 & 71	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status				Comments	* Normal & Accident Gamma
Revision #	0	Date	8/25/83		
Prepared By	Alan Gil	Date	8/25/83		
Reviewed By	PAKumar	Date	11/29/83		

Form #1 EQRR # 8 Sheet 1 of

Plant I.D. 1-15 | Description Check Valve | Equip. Manuf.

System/CCP Control Rod Drive Hydraulic/036 | Area/Elev./Rm. # 11/253'/402 | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-47 Rev. 9 | Foreign Print # | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	400	89	104	1	120	1
Pressure (PSIG)	1455	88	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status | Comments

Revision # 0 | Date 8/25/83

Prepared By Alan Gil | Date 8/25/83

Reviewed By PAKumar | Date 11/29/83

Plant I.D. 1-38		Description Check Valve		Equip. Manuf.	
System/CCP Control Rod Drive Hydraulic/036		Area/Elev./Rm. # 11/253'/402		M.R./M.P. Item # M-001/	
Ref. Dwg. # P&ID M-47 Rev. 9		Foreign Print #		P.O. # M-001	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	400	89	104	1	120	1
Pressure (PSIG)	1167	88	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 *	70 & 71	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status

Comments * Normal & Accident Gamma

Revision # 0 Date 8/25/83

Prepared By Alan Gil Date 8/25/83

Reviewed By AKumar Date 11/29/83

Plant I.D. 1F161A		Description Check Valve		Equip. Manuf. ITT Grinnell	
System/CCP Control Rod Drive Hydraulic/036		Area/Elev./Rm. # 11/253'/402		M.R./M.R. Item # M-001/	
Ref. Dwg. # P&ID M-47 Rev. 9		Foreign Print # Vendor Figure #3300SJ		P.O. # M-001	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	104	1	120	1
Pressure (PSIG)	125	3	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status Acceptable (No non-metallic parts) Comments

Revision # 0 Date 8/25/83

Prepared By Alan Gil Date 8/25/83

Reviewed By PAKumar Date 11/29/83

Plant I.D. 1F161B		Description Check Valve		Equip. Manuf. ITT-Grinnell	
System/CCP Control Rod Drive Hydraulic/036		Area/Elev./Rm. # 11/253'/402		M.R./M.R. Item # M-001/	
Ref. Dwg. # P&ID M-47 Rev. 9		Foreign Print # Vendor Figure #33009J		P.O. #	M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	104	1	120	1
Pressure (PSIG)	125	3	-1/4"w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hrs	2

Overall EQ Status Acceptable (No Non-metallic parts) Comments

Revision # 0 Date 8/25/83

Prepared By Alan Gil Date 8/25/83

Reviewed By A Kumar Date 11/29/83

Plant I.D. HV-57-104 Description Air Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 12/217'/304 M.R./M.R. Item # P-144/1.11

Ref. Dwg. # P&ID M-57 Sh. 1 Rev. 11 Foreign Print # 8031-P-144-18-2 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	8.78×10^2 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pathak Date 12/1/83

Form #1 EQRR # 1 Sheet 1 of ___

PLANT I. D. HV-57-104

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12.1.83

FOREIGN PRINT # 8031-P-144-18-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-104

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-18-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-104 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-18-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-105 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 12/217'/304 M.R./M.R. Item # P-114A/9.15

Ref. Dwg. # P&ID M-57 Sh. 1 Rev. 11 Foreign Print # 8031-P-114A-44-6 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status

Comments

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orthai Date 12/1/83

Form #1 EQRR # 2 Sheet 1 of 2

PLANT I. D. HV-57-105

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-109 Description Motor Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 15/217'/304 M.R./M.R. Item # P-144/1.3

Ref. Dwg. # P&ID M-57 Sh. 1 Rev. 11 Foreign Print # 8031-P-144-15-2 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Achai Date 12/1/83

PLANT I. D. HV-57-109

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-152

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-109

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-15-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-109

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-15-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-111 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 11/283'/522 M.R./M.R. Item # P-144A/9.15

Ref. Dwg. # P&ID M-57 Sh.1 Rev. 11 Foreign Print # 8031-P-114A-44-6 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	115	1	210	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	2.7	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	1.24×10^6 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orthai Date 12/1/83

PLANT I. D. HV-57-111

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY M.R. Daly DATE 12/1/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-57-112	Description	Motor Op. Butterfly Valve	Equip. Manuf.	Clow
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	12/217'/304	M.R./M.R. Item #	P-144/1.9
Ref. Dwg. #	P&ID M-57 Sh. 1 Rev. 11	Foreign Print #	8031-P-144-17-2	P.O. #	P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	8.78×10^2 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orchai Date 12/1/83

PLANT I. D. HV-57-112

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-17-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-112

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [illegible] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-17-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-112

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY BRPaty DATE 12/1/83

FOREIGN PRINT # 8031-P-144-17-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-114 Description Air Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 11/283'/522 M.R./M.R. Item # P-144/1.7

Ref. Dwg. # P&ID M-57 Sh. 1 Rev. 11 Foreign Print # 8031-P-144-20-3 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	115	1	210	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	2.78	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	1.24×10^6 (Gamma)	1	4.13×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orchai Date 12/1/83

PLANT I. D. HV-57-114

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

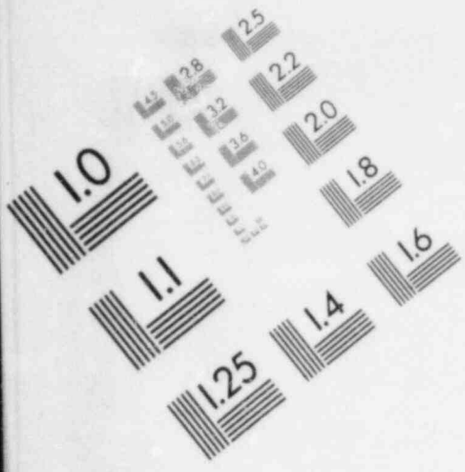
FOREIGN PRINT # 8031-P-144-20-3

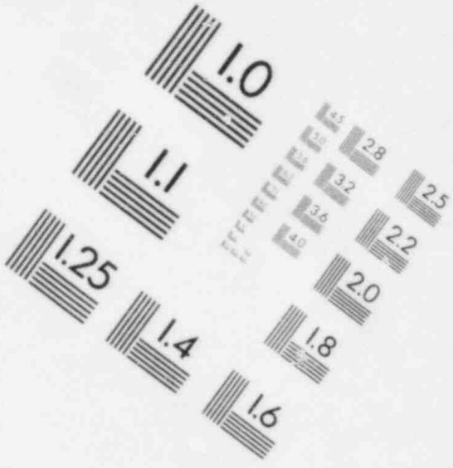
RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

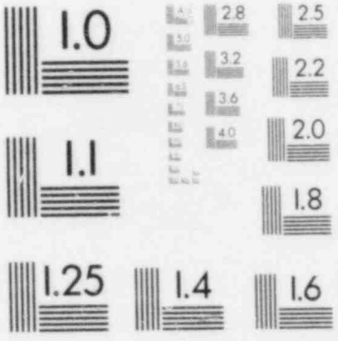
NON-METALLIC PART EQ STATUS Acceptable

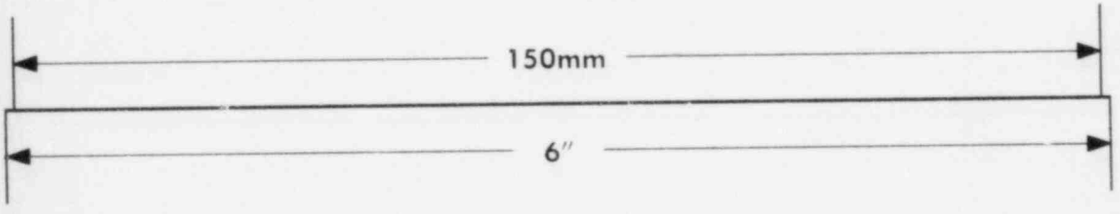
COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

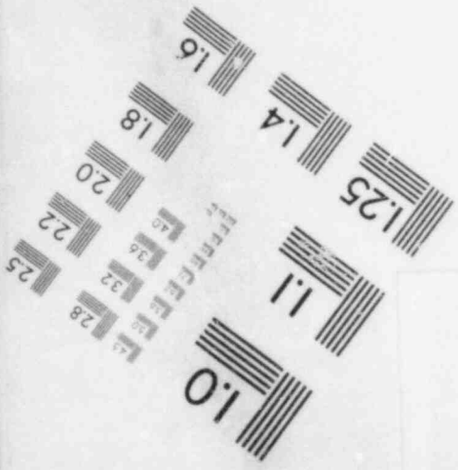
IMAGE EVALUATION TEST TARGET (MT-3)

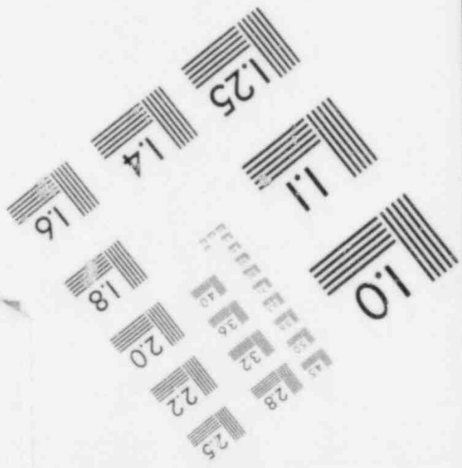












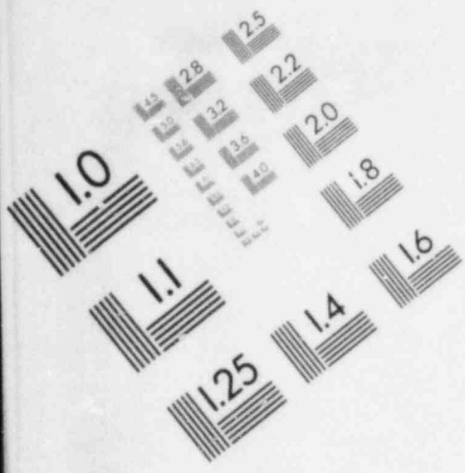
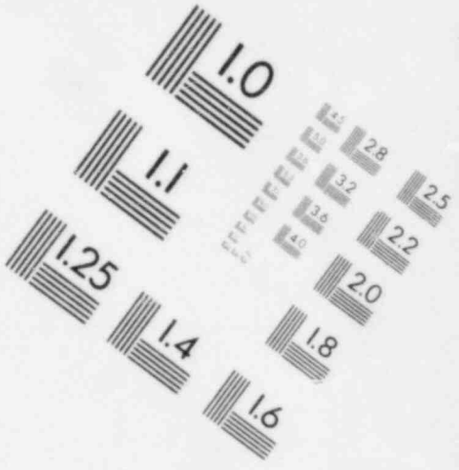
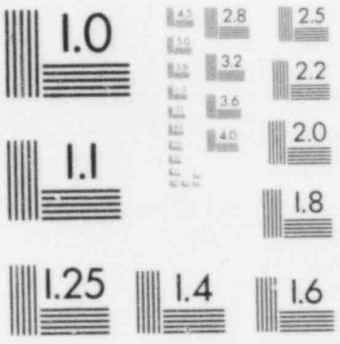
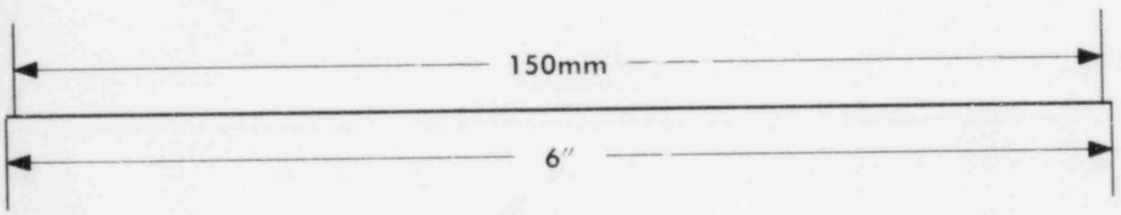
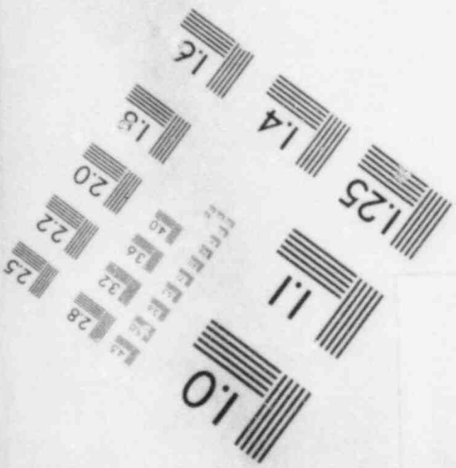


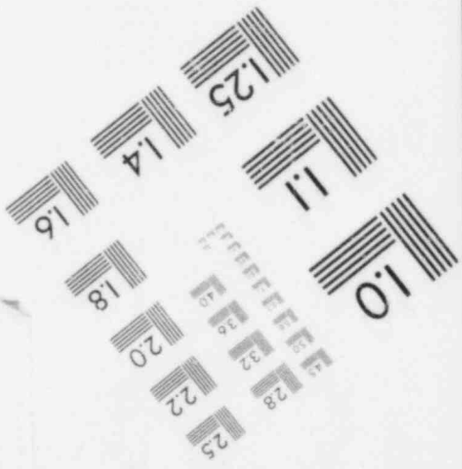
IMAGE EVALUATION TEST TARGET (MT-3)











PLANT I. D. HV-57-114

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-57-114

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY P.R. Caty DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-114

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-115 Description Motor Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 11/283'/522 M.R./M.R. Item # P-144/1.1

Ref. Dwg. # P&ID M-57 Sh. 1 Rev. 11 Foreign Print # 8031-P-144-19-3 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	115	1	210	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	2.7	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	1.24×10^6 (Gamma)	1	4.13×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Archuleta Date 12/1/83

PLANT I. D. HV-57-115

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY P.R. Raty DATE 12.1.83

FOREIGN PRINT # 8031-P-144-19-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-115 DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-19-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-115

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R Healy DATE 12/1/83

FOREIGN PRINT # 8031-P-144-19-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-57-116	Description	Motor Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	16/217'/309	M.R./M.R. Item #	P-114A/9.21
Ref. Dwg. #	P&ID M-57 Sh. 1 Rev. 11	Foreign Print #	8031-P-114A-69-7	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	120	1	264	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	N/A	N/A	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	8/29/83		
Prepared By	A. Gil	Date	8/29/83		
Reviewed By	V. Orchan	Date	12/1/83		

PLANT I. D. HV-57-116

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12.1.83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-117 Description Air Op. Globe Valve Equip. Manuf. Rockwell

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 11/283'/522 M.R./M.R. Item # P-114A/7.36

Ref. Dwg. # P&ID M-57 Sh. 1 Rev. 11 Foreign Print # 8031-P-114A-71-7 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	115	1	210	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	2.7	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	1.24×10^6 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Comments

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Orchard Date 12/7/83

PLANT I. D. HV-57-117

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	----	----	Part is removed prior to valve installation and performs no safety function.
			PRESSURE (PSIG)	----	-----	
			RADIATION (Rads)	----	-----	
			HUMIDITY (%)	----	-----	
			AGING ANALYSIS	----	----	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lyon DATE 12/7/83

FOREIGN PRINT # 8031-P-114A-71-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-57-117

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lepa DATE 12/7/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

PLANT I. D. HV-57-117

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Crane 187-IX	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments		

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lerma DATE 12/7/83

FOREIGN PRINT # 8031-P-114A-71-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81)

Plant I.D.	HV-57-118	Description	Air Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	12/217'/304	M.R./M.R. Item #	P-114A/7.36
Ref. Dwg. #	P&ID M-57 Sh. 1 Rev. 11	Foreign Print #	8031-P-114A-71-7	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Ochoa Date 12/7/83

PLANT I. D. HV-57-118

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	----	----	Part is removed prior to valve installation and performs no safety function.
			PRESSURE (PSIG)	----	-----	
			RADIATION (Rads)	----	-----	
			HUMIDITY (%)	----	-----	
			AGING ANALYSIS	----	----	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lepa DATE 12/7/83

FOREIGN PRINT # 8031-P-114A-71-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-57-118

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Dexter DATE 12/7/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

PLANT I. D. HV-57-118

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Crane 187-IX	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments		

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lefton DATE 12/7/83

FOREIGN PRINT # 8031-P-114A-71-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81)

Plant I.D.	HV-57-121	Description	Air Op. Butterfly Valve	Equip. Manuf.	Clow
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	P-144/1.13
Ref. Dwg. #	P&ID M-57 Sh. 1 Rev. 11	Foreign Print #	8031-P-144-16-2	P.O. #	P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	120	1	264	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orchwai Date 12/1/83

PLANT I. D. HV-57-121

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-16-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-121 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY Beaty DATE 12/1/83

FOREIGN PRINT # 8031-P-144-16-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-121 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-16-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-123 Description Air Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 15/217'/306 M.R./M.R. item # P-144/1.7

Ref. Dwg. # P&ID M-57 Sh. 1 Rev. 11 Foreign Print # 8031-P-144-20-3 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	120	1	264	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pschai Date 12/1/83

PLANT I. D. HV-57-123 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY P.R. Raby DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-123

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-57-123

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-104-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-123

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-124 Description Air Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 15/217'/309 M.R./M.R. Item # P-144/1.7

Ref. Dwg. # P&ID M-57 Sh. 1 Rev. 11 Foreign Print # 8031-P-144-20-3 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	120	1	264	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orchai Date 12/1/83

Form #1 EQRR # 13 Sheet 1 of ___

PLANT I. D. HV-57-124

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B.R. Daley DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-124

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19	Grafoil	TEMPERATURE (°F)	5400	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-57-124 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B.O.Raty DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-124

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R.B. Paty DATE 12/1/83

FOREIGN PRINT # 8031-P-144-20-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-131 Description Air Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. #15/217'/309 M.R./M.R. Item # P-144/1.13

Ref. Dwg. # P&ID M-57 Sh. 1 Rev.15 Foreign Print # P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	120	1	120	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Comments

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orchan Date 12/1/83

Form #1 EQRR # 14 Sheet 1 of

Plant I.D. HV-57-135 Description Motor Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 15/217'/309 M.R./M.R. Item # P-144/1.1

Ref. Dwg. # P&ID M-57 Sh 1 Rev. 11 Foreign Print # 8031-P-144-19-3 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	120	1	264	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orchai Date 12/1/83

PLANT I. D. HV-57-135

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY P.R. Raby DATE 12/1/83

FOREIGN PRINT # 8031-P-144-19-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-135 DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-19-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-135

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-19-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-57-147	Description	Motor Op. Butterfly Valve	Equip. Manuf.	Clow
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	P-144/1.1
Ref. Dwg. #	P&ID M-57 Sh 1 Rev. 11	Foreign Print #	8031-P-144-19-3	P.O. #	P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	120	1	264	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	8.22×10^4 (Accident Gamma)	71	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Archuni Date 12/1/83

PLANT I. D. HV-57-147

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B.R. Doty DATE 12/1/83

FOREIGN PRINT # 8031-P-144-19-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-147

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY P.R. Raby DATE 12/1/83

FOREIGN PRINT # 8031-P-144-19-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-147

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-19-3

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-160A | Description Motor Op. Gate Valve | Equip. Manuf. Velan

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/217'/309 | M.R./M.R. Item # P-102C/6.20

Ref. Dwg. # P&ID M-57 Sh 1 Rev. 11 | Foreign Print # 8031-P-102C-169-6 | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	120	1	120	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 0 | Date 8/29/83

Prepared By A. Gil | Date 8/29/83

Reviewed By V. Pichai | Date 12/1/83

PLANT I. D. HV-57-160A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	13	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R.R. Petty DATE 12/1/83

FOREIGN PRINT # 8031-P-102C-169-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-160A

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	11	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B.C. Paly DATE 12/1/83

FOREIGN PRINT # 8031-P-102C-169-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-160B | Description Motor Op. Gate Valve | Equip. Manuf. Velan

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/217'/309 | M.R./M.R. Item # P-102C/6.20

Ref. Dwg. # P&ID M-57 Sh 1 Rev. 11 | Foreign Print # 8031-P-102C-169-6 | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	120	1	120	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	180 days	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 0 | Date 8/29/83

Prepared By A. Gil | Date 8/29/83

Reviewed By V. Orchard | Date 12/1/83

PLANT I. D. HV-57-160B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	13	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B.R. Baty DATE 12/1/83

FOREIGN PRINT # 8031-P-102C-169-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-160B

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	11	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R R Raty DATE 10/18/83

FOREIGN PRINT # 8031-P-102C-169-6

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-57-161	Description	Motor Op. Butterfly Valve	Equip. Manuf.	Clow
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	11/283'/522	M.R./M.R. Item #	P-144/1.5
Ref. Dwg. #	P&ID M-57 Sh 1 Rev. 11	Foreign Print #	8031-P-144-17-2	P.O. #	P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	115	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	1.24×10^6 (Gamma)	1	4.13×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Rchai Date 12/1/83

PLANT I. D. HV-57-161

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-17-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-161

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R.R. Patey DATE 12/1/83

FOREIGN PRINT # 8031-P-144-17-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-161

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containmenc Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-17-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-162 Description Motor Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 12/217'/304 M.R./M.R. Item # P-144/1.3

Ref. Dwg. # P&ID M-57 Sh 1 Rev 11 Foreign Print # 8031-P-144-15-2 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	8.78×10^2 (Gamma)	1	4.15×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Chichvai Date 12/1/83

PLANT I. D. HV-57-162

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-15-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-162

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY O'Rourke DATE 12/1/83

FOREIGN PRINT # 8031-P-144-15-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA b der prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-162

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-15-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-163 Description Motor Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 15/217'/306 M.R./M.R. Item # P-144/1.5

Ref. Dwg. # P&ID M-57 Sh 1 Rev. 11 Foreign Print # 8031-P-144-17-2 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	120	1	120	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pechan Date 12/1/83

PLANT I. D. HV-57-163

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-17-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-163

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-17-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-163

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-P-144-17-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-164 Description Motor Op. Butterfly Valve Equip. Manuf. Clow

System/CCP Containment Atmosphere Control/040 Area/Eiev./Rm. # 15/217'/309 M.R./M.R. Item # P-144/1.3

Ref. Dwg. # P&ID M-57 Sh 1 Rev. 11 Foreign Print # 8031-P-144-15-2 P.O. # P-144

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	120	1	120	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	8.46×10^5 (Gamma)	1	4.55×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Comments

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pathan Date 12/1/83

PLANT I. D. HV-57-164

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	9	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-144-15-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-164

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	19A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B R Patey DATE 12/1/83

FOREIGN PRINT # 8031-P-144-15-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-57-164

DESCRIPTION Motor Operated Butterfly Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	4	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B R Daly DATE 12/1/83

FOREIGN PRINT # 8031-P-144-15-2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-57-168A	Description	Motor Op. Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/506	M.R./M.R. Item #	P-114A/9.17
Ref. Dwg. #	P&ID M-57 Sh 1 Rev 11	Foreign Print #	8031-P-114A-69-7	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	260	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	8.78×10^2 (Gamma)	1	3.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Qchai Date 12/1/83

PLANT I. D. HV-57-168A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-57-168B | Description Motor Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 16/283'/500 | M.R./M.R. Item # P-114A/9.17

Ref. Dwg. # P&ID M-57 Sh 1 Rev. 11 | Foreign Print # 8031-P-114A-69-7 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	260	3	104	1	120	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.19×10^5 (Accident Gamma)	71	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pichai Date 12/1/83

PLANT I. D. HV-57-168B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-114A-69-7

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. PCV-57-129A | Description Pressure Control Valve | Equip. Manuf. Comsip

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/283'/501 | M.R./M.R. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-235-10-10 | P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Revision # 0 | Date 8/29/83

Prepared By A. Gil | Date 8/29/83

Reviewed By V. Pichai | Date 12/1/83

Comments: No non-metallic piece parts identified. Reduced radiation value for accident ambient environment conditions from Table 2 of Ref. 1 used.

Plant I.D. PCV-57-129B | Description Pressure Control Valve | Equip. Manuf. Comsip

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/283'/501 | M.R./M.R. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-235-10-10 | P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Archai Date 12/1/83

Comments No non-metallic piece parts identified. Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

Plant I.D. PCV-57-172A | Description Pressure Regulator | Equip. Manuf. Linde

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/283'/501 | M.R./M.R. Item # F-5519/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-621,Sh. 26, Rev. 2 | P.O. # F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	115	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Chhabra Date 12/6/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PCV-57-172A

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (EFTE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-172A

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	— — —	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/33

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D. PCV-57-172B | Description Pressure Regulator | Equip. Manuf. Linde

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/283'/501 | M.R./M.R. Item # F-5519/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-621, Sh.26, Rev. 2 | P.O. # F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	115	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Achari Date 12/6/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PCV-57-172B

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (EFTE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-172B

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	— — —	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D. PCV-57-172C | Description Pressure Control Valve | Equip. Manuf. Linde

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/283'/501 | M.R./M.R. Item # F-5519/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-11-621,Sh. 26, Rev. 2 | P.O. # F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	115	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Archuleta Date 12/6/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PCV-57-172C

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (EFTE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-11-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-172C

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	— — —	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D. PCV-57-173A Description Back Pressure Regulator Equip. Manuf. Linde

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 15/283'/501 M.R./M.R. Item # F-5519/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 Foreign Print # 8031-M-621,Sh. 26, Rev. 2 P.O. # F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	115	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Orchard Date 12/6/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

Form #1 EQRR # 30 Sheet 1 of 3

PLANT I. D. PCV-57-173A

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (EFTE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-173A

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	— — —	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D. PCV-57-173B | Description Back Pressure Regulator | Equip. Manuf. Linde

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/283'/501 | M.R./M.R. Item # F-5519/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-621, Sh.26, Rev. 2 | P.O. # F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	115	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Archuleta Date 12/8/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PCV-57-173B

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (EFTE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-173B

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	— — —	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D. PCV-57-176A | Description Pressure Control Valve | Equip. Manuf. Linde

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # F-5519/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-621,Sh. 26, Rev. 2 | P.O. # F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	104	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Orehai Date 12/6/83

Comments Reduced radiation value for accident ambient environment condition from Table 2 of Reference 1 used.

PLANT I. D. PCV-57-176A

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (EFTE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-176A

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	— — —	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D. PCV-57-176B | Description Pressure Control Valve | Equip. Manuf. Linde

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # F-5519/

Ref. Dwg. # P&IC M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-621,Sh. 26, Rev. 2 | P.O. # F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	104	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Archuai Date 12/6/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PCV-176B

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (EFTE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-176B

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	— — —	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D.	PCV-57-176C	Description	Pressure Control Valve	Equip. Manuf.	Linde
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	F-5519/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-621,Sh. 26, Rev. 2	P.O. #	F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	104	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/5/83

Reviewed By V. Pichai Date 12/6/83

Comments: Reduced radiation value for accident ambient environment condition from Table 2 of Reference 1 used.

PLANT I. D. PCV-57-176C

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (EFTE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-176C

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	12	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D. PCV-57-177A | Description Pressure Control Valve | Equip. Manuf. Linde

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # F-5519/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-621,Sh. 26, Rev. 2 | P.O. # F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	104	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Archai Date 12/6/83

Comments Reduced radiation value for accident ambient environment condition from Table 2 of Reference 1 used.

PLANT I. D. PCV-57-177A

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (EFTE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-177A

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	— — —	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D. PCV-57-177B | Description Pressure Control Valve | Equip. Manuf. Linde

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # F-5519/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-621,Sh. 26, Rev. 2 | P.O. # F-5519

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	104	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Archai Date 12/6/83

Comments Reduced radiation value for accident ambient environment condition from Table 2 of Reference 1 used.

PLANT I. D. PCV-57-177B

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel (Ethylene-Tetra Fluoro Ethylene (ETFE) Copolymer)	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	- - -	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-11-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

PLANT I. D. PCV-57-177B

DESCRIPTION Pressure Regulator

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seals	-	Tefzel	TEMPERATURE (°F)	300 - 350	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2×10^7	85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	— — —	

REVISION # 0 DATE 12/9/83

PREPARED BY V. Pichai DATE 12/9/83

REVIEWED BY _____ DATE _____

FOREIGN PRINT # Data Sheet 8031-M-621, Sh. 26, Rev. 2

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant life plus end of life accident.

Plant I.D.	PCV-57-199A	Description	Pressure Control Valve	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Rehrai Date 12/1/83

Comments No non-metallic piece parts identified. Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

Plant I.D.	PCV-57-199B	Description	Pressure Control Valve	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pichai Date 12/1/83

Comments No non-metallic piece parts identified. Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

Plant I.D.	PDCV-57-127A	Description	Diff. Press. Reduce Reg.	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	115	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pichai Date 12/1/83

Comments: Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PDCV-57-127A

DESCRIPTION Diff. Press. Reduce Reg.

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	180 days @ 120° and 10 mon. @ 115°	74	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B R Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE 10 Months (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS For longer replacement schedule, part may be replaced with more thermally resistant elastomer.

Plant I.D.	PDCV-57-127B	Description	Diff. Press. Reduce Reg.	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	115	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	7.39×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/29/83

Prepared By: A. Gil Date: 8/29/83

Reviewed By: V. Orchwai Date: 12/1/83

Comments: Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PDCV-57-127B

DESCRIPTION Diff. Press. Reduce Reg.

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	180 days @ 120° and 10 mon. @ 115°	74	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY P.R. Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE 10 Months (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS For longer replacement schedule, part may be replaced with more thermally resistant elastomer.

Plant I.D. PDCV-57-128A | Description Diff. Press. Reduce Reg. | Equip. Manuf. Comsip

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/283'/501 | M.R./M.R. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-235-10-10 | P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	115	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Rehai Date 12/1/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PDCV-57-128A

DESCRIPTION Diff. Press. Reduce Reg.

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	180 days @ 120° and 10 mon. @ 115°	74	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY P&R Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE 10 Months (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS For longer replacement schedule, part may be replaced with more thermally resistant elastomer.

Plant I.D.	PDCV-57-128B	Description	Diff. Press. Reduce Reg.	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	115	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orchard Date 12/1/83

Comments: Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PDCV-57-128B

DESCRIPTION Diff. Press. Reduce Reg.

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	180 days @ 120° and 10 mon. @ 115°	74	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R&R Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE 10 Months (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS For longer replacement schedule, part may be replaced with more thermally resistant elastomer.

Plant I.D.	PDCV-57-150	Description	Diff. Press. Reduce Reg.	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pichai Date 12/1/83

Comments No non-metallic piece parts identified. Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

Plant I.D. PDCV-57-151 Description Diff. Press. Reduce Reg. Equip. Manuf. Comsip

System/CCP Containment Atmosphere Control/040 Area/Elev./Rm. # 15/283'/501 M.R./M.R. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 Foreign Print # 8031-M-235-10-10 P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Achari Date 12/1/83

Comments No non-metallic piece parts identified. Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

Form #1 EQRR # 44 Sheet 1 of 1

Plant I.D.	PDCV-57-187	Description	Diff. Press. Reduce Reg.	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Achai Date 12/1/83

Comments No non-metallic piece parts identified. Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

Plant I.D. PDCV-57-188 | Description Diff. Press. Reduce Reg. | Equip. Manuf. Comsip

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-235-11-9 | P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Achai Date 12/1/83

Comments No non-metallic piece parts identified. Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

Plant I.D. PDCV-57-197A | Description Diff. Press. Reduce Reg. | Equip. Manuf. Comsip

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-235-11-9 | P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	104	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	~1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Rahvai Date 12/1/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PDCV-57-197A

DESCRIPTION Diff. Press. Reduce Req.

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	180 days/120 and 1 yr @ 104 °F	74	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE 1 Year Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule)

COMMENTS For longer replacement schedule, part may be replaced with more thermally resistant elastomer.

Plant I.D.	PDCV-57-197B	Description	Diff. Press. Reduce Reg.	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	104	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orehan Date 12/1/83

Comments: Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PDCV-57-197B

DESCRIPTION Diff. Press. Reduce Reg.

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	180 days/120 °F and 1 yr @ 104 °F	74	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B&R Patay DATE 12/1/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE 1 Year (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS For longer replacement schedule, part may be replaced with more thermally resistant elastomer.

Plant I.D. PDCV-57-198A | Description Diff. Press. Reduce Reg. | Equip. Manuf. Comsip

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-235-11-9 | P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	104	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Archari Date 12/1/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PDCV-57-198A

DESCRIPTION Diff. Press. Reduce Reg.

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	180 days/120 °F and 1 yr @ 104 °F	74	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE 1 Year (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Accentable (Based on recommended replacement schedule).

COMMENTS For longer replacement schedule, part may be replaced with more thermally resistant elastomer.

Plant I.D.	PDCV-57-198B	Description	Diff. Press. Reduce Reg.	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	Norm 70 Max 140	92	104	1	120	1
Pressure (PSIG)	Norm 2640 Max 3100	92	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 8/29/83

Prepared By: A. Gil Date: 8/29/83

Reviewed By: V. Orhai Date: 12/1/83

Comments: Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PDCV-57-198B

DESCRIPTION Diff. Press. Reduce Reg.

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		Neoprene	TEMPERATURE (°F)	See Aging Analysis		
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	180 days/120 and 1 yr @ 104 °F	74	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE 1 Year (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS For longer replacement schedule, part may be replaced with more thermally resistant elastomer.

Plant I.D.	PSV-57-129	Description	Pressure Relief Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Rahai Date 12/1/83

Comments Reduced radiation value for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PSV-57-129

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R226 Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-10-10 does not identify Teflon gasket. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. PSV-57-129 DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R R Paley DATE 12.1.83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities, based on aging analysis, exceed plant life and end of life accident).

COMMENTS 8031-M-235-10-10 does not identify Viton "O"-Ring. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

Plant I.D.	PSV-57-137A	Description	Vacuum Relief Valve	Equip. Manuf.	Asco
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	16/253'/Z-6	M.R./M.R. Item #	M-081/1.0
Ref. Dwg. #	P&ID M-57 Sh 1 Rev 11	Foreign Print #	8031-M-81-9-1	P.O. #	M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	150	1	212	1
Pressure (PSIG)	30	3	.75	1	44	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.7×10^6 (Gamma) 1.5×10^5 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status _____

Comments Valve subject to chemical spray

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pichai Date 12/1/83

PLANT I. D. PSV-57-137A

DESCRIPTION Vacuum Relief Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Rings	25, 26, 27, & 28	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 13.7 yrs @ 212	76	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY R2 Paty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-9-1

RECOMMENDED REPLACEMENT SCHEDULE 10 Years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS

Plant I.D. PSV-57-137B	Description Vacuum Relief Valve	Equip. Manuf. Asco
System/CCP Containment Atmosphere Control/040	Area/Elev./Rm. # 16/253'/Z-6	M.R./M.R. Item # M-081/1.0
Ref. Dwg. # P&ID M-57 Sh 1 Rev 11	Foreign Print # 8031-M-81-9-1	P.O. # M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	150	1	212	1
Pressure (PSIG)	30	3	.75	1	44	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.7×10^6 (Gamma) 1.5×10^5 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status _____ Comments Valve subject to chemical spray

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Achvai Date 12/1/83

PLANT I. D. PSV-57-137B

DESCRIPTION Vacuum Relief Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Rings	25, 26, 27, & 28	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 13.7 yrs @ 212	76	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY P.B. Baty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-9-1

RECOMMENDED REPLACEMENT SCHEDULE 10 Years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS

Plant I.D.	PSV-57-137C	Description	Vacuum Relief Valve	Equip. Manuf.	Asco
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	16/253'/Z-6	M.R./M.R. Item #	M-081/1.0
Ref. Dwg. #	P&ID M-57 Sh 1 Rev 11	Foreign Print #	8031-M-81-9-1	P.O. #	M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	150	1	212	1
Pressure (PSIG)	30	3	.75	1	44	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.7×10^6 (Gamma) 1.5×10^5 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status _____ Comments Valve subject to chemical spray

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pichai Date 12/1/83

PLANT I. D. PSV-57-137C

DESCRIPTION Vacuum Relief Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Rings	25, 26, 27, & 28	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 13.7 yrs @ 212	76	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-81-9-1

RECOMMENDED REPLACEMENT SCHEDULE 10 Years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS

Plant I.D.	PSV-57-137D	Description	Vacuum Relief Valve	Equip. Manuf.	Asco
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	16/253'/Z-6	M.R./M.R. Item #	M-081/1.0
Ref. Dwg. #	P&ID M-57 Sh 1 Rev 11	Foreign Print #	8031-M-81-9-1	P.O. #	M-081

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	150	1	212	1
Pressure (PSIG)	30	3	.75	1	44	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.7×10^6 (Gamma) 1.5×10^5 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 years	34	180 days	2

Overall EQ Status _____ Comments Valve subject to chemical spray

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Pichai Date 12/1/83

PLANT I. D. PSV-57-137D

DESCRIPTION Vacuum Relief Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Rings	25, 26, 27, & 28	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 13.7 yrs @ 212	76	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B.A. Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-81-9-1

RECOMMENDED REPLACEMENT SCHEDULE 10 Years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on recommended replacement schedule).

COMMENTS

Plant I.D.	PSV-57-199	Description	Pressure Relief Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Rehai Date 12/1/83

Comments Reduced radiation valve for accident ambient environment conditions from Table 2 of Reference 1 used.

PLANT I. D. PSV-57-199 DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY B.C. Patty DATE 12/1/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on ~~EQ evaluation~~)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENT 8031-M-235-11-9 does not identify Teflon gasket. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. FSV-57-199 DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)	-	Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities, based on aging analysis, exceed plant life and end of life accident).

COMMENTS 8031-M-235-11-9 does not identify Viton "O"-Ring. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

Plant I.D.	1068A	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/238'/402	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-57 Sh 1 Rev 11	Foreign Princ #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	8/29/83		
Prepared By	A. Gil	Date	8/29/83		
Reviewed By	V. Aichai	Date	12/1/83		

PLANT I. D. 1068A

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20 & 28	Polyethylene	TEMPERATURE (°F)	-	-	Parts #20 and #28 are not valve parts. They will be removed before valve is installed. No effect on valve performance.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1068B | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/242'/402 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-57 Sh 1 Rev 11 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) | Comments

Revision # 0 | Date 8/29/83

Prepared By A. Gil | Date 8/29/83

Reviewed By V. Rehai | Date 12/1/83

PLANT I. D. 1068B

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Cap Plug	20 & 28	Polyethylene	TEMPERATURE (°F)	-	-	Parts #20 and #28 are not valve parts. They will be removed before valve is installed. No effect on valve performance.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY [signature] DATE 12/1/83

FOREIGN PRINT # 8031-P114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Form #2 EQRR # 58 SHEET 2 OF 2

Plant I.D.	1109	Description	Check Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-253-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status				Comments	
Revision #	0	Date	8/29/83		
Prepared By	A. Gil	Date	8/29/83		
Reviewed By	V. Dihai	Date	12/1/83		

PLANT I. D. 1109

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY R.R. Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on ~~EQ evaluation~~)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-10-10 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1109 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Ichai DATE 12/6/83

REVIEWED BY R22 Patty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities, based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-10-10 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

Plant I.D.	1110	Description	Check Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status				Comments	
Revision #	0	Date	8/29/83		
Prepared By	A. Gil	Date	8/29/83		
Reviewed By	V. Orchard	Date	12/1/83		

PLANT I. D. 1110 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-10-10 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1110 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See [illegible]ents)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY R.B. Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities, based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-10-10 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75)

Plant I.D. 1111 | Description Check Valve | Equip. Manuf. Nupro

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/283'/501 | M.R./M.R. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-235-10-10 | P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Archai Date 12/1/83

PLANT I. D. 1111 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY B R Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-10-10 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75)

PLANT I. D. 1111 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-10-10 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

Plant I.D. 1112 | Description Check Valve | Equip. Manuf. Nupro

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/283'/501 | M.R./M.P. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-235-10-10 | P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status

Comments

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Orchard Date 12/1/83

PLANT I. D. 1112 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY B R Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-10-10 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1112 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY B.R. Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities, based on aging analysis, exceed plant life and of life accident.

COMMENTS 8031-M-235-10-10 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

Plant I.D. 1113 | Description Check Valve | Equip. Manuf. Nupro

System/CCP Containment Atmosphere Control/040 | Area/Elev./Rm. # 15/253'/402 | M.R./M.R. Item # M-235/

Ref. Dwg. # P&ID M-57 Sh 2 Rev 3 | Foreign Print # 8031-M-235-11-9 | P.O. # M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Archai Date 12/1/83

PLANT I. D. 1113

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY BR Pahl DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-11-9 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1113

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-11-9 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75)

Form #2 EQRR # 63 SHEET 3 OF 3

Plant I.D.	1114	Description	Check Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status				Comments	
Revision #	0	Date	8/29/83		
Prepared By	A. Gil	Date	8/29/83		
Reviewed By	V. Orchai	Date	12/1/83		

PLANT I. D. 1114 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY B.R. Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-11-9 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1114 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY Parpaty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities, based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-11-9 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75)

Plant I.D.	1115	Description	Check Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status				Comments	
Revision #	0	Date	8/29/83		
Prepared By	A. Gil	Date	8/29/83		
Reviewed By	V. Orchard	Date	12/1/83		

PLANT I. D. 1115 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on ~~EQ evaluation~~)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-11-9 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1115 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY B. Safety DATE 12/8/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities, based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-11-9 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75)

Plant I.D.	1116	Description	Check Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status				Comments	
Revision #	0	Date	8/29/83		
Prepared By	A. Gil	Date	8/29/83		
Reviewed By	V. Chehrazi	Date	12/1/83		

PLANT I. D. 1116 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY B.A. Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-11-9 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75)

PLANT I. D. 1116 DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY Safety DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities, based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-11-9 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

Plant I.D.	1117A	Description	Check Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status				Comments	
Revision #	0	Date	8/29/83		
Prepared By	A. Gil	Date	8/29/83		
Reviewed By	Y. Orechwi	Date	12/1/83		

PLANT I. D. 1117A

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. [illegible] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-10-10 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1117A

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY R.R. Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-10-10 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75)

Plant I.D.	1117B	Description	Check Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	115	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status				Comments	
Revision #	0	Date	8/29/83		
Prepared By	A. Gil	Date	8/29/83		
Reviewed By	V. Ochoa	Date	12/1/83		

PLANT I. D. 1117B

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Letter DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-10-10 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1117B

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1,2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY B.R. Paley DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-10-10 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

Plant I.D.	1118A	Description	Check Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PS[illegible]	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (R[illegible]	8 X 10^5 [illegible]ident Gamma)	91	3.51 X 10^4 (Gamma)	1	5.05x10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Oichai Date 12/1/83

PLANT I. D. 1118A

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of cneck valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Letta DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-10-10 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1118A

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Accentable (Material capabilities based on aging analysis, exceed plant life and end of life accident.

COMMENTS 8031-M-235-11-9 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

Plant I.D.	1118B	Description	Check Valve	Equip. Manuf.	Nupro
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	220	91	104	1	120	1
Pressure (PSIG)	47.6	91	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 8/29/83

Prepared By A. Gil Date 8/29/83

Reviewed By V. Dichvai Date 12/1/83

PLANT I. D. 1118B

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket (See Comments)		Teflon	TEMPERATURE (°F)	-	-	Teflon gasket failure would not affect active functioning of check valve. Slight leakage through valve body may occur.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lee DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS 8031-M-235-10-10 does not identify gasket part. Obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

PLANT I. D. 1118B

DESCRIPTION Check Valve

SYSTEM/CCP Containment Atmosphere Control/040

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring (See Comments)		Viton	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	2.3×10^7	73	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Part EQ Status	86	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY P.R. Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Material capabilities based on aging analysis, exceed plant life and end of life accident.

COMMENTS 3031-M-235-11-9 identifies "O"-Ring as seal. "O"-Ring part name obtained from NUPRO catalog NW-273 and vendor (Ref. 75).

Plant I.D.	1AP253	Description	Pump	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	115	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status				Comments	
Revision #	1	Date	12/6/83		
Prepared By	A. Gil	Date	12/6/83		
Reviewed By	V. Pichai	Date			

PLANT I. D. 1AP253 DESCRIPTION Pump

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 34 yrs @ 212	84	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY R R Raty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE 30 Yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement Schedule).

COMMENTS 8031-M-235-10-10 identifies diaphragm as nylon reinforced neoprene; vendor identifies material as EDPM (Ref. 75)

PLANT I. D. 1AP253 DESCRIPTION Pump

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring		Silicone	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 76 yrs @ 212	74 & 72	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS 8031-M-235-10-10 does not identify "O"-Ring Obtained fr m vendor (Ref. 75).

Plant I.D.	1AP254	Description	Pump	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Archai Date 12/7/83

PLANT I. D. 1AP254 DESCRIPTION Pump

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PAR. #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 34 yrs @ 212	84	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY BR Patty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE 30 Yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement Schedule).

COMMENTS 8031-M-235-11-9 identifies diaphragm as nylon reinforced neoprene; vendor identifies material as EDPM (Ref. 75).

PLANT I. D. 1AP254 DESCRIPTION Pump

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring		Silicone	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 76 yrs @ 212	74 & 72	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY P.R. Paty DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS 8031-M-235-11-9 does not identify "O"-Ring. Obtained from vendor (Ref. 75)

Plant I.D.	1BP253	Description	Pump	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/283'/501	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-10-10	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	115	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	7.89×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Orchai Date 12/7/83

PLANT I. D. 1BP253 DESCRIPTION Pump

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 34 yrs @ 212	84	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE 30 Yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement Schedule).

COMMENTS 8031-M-235-10-10 identifies diaphragm as nylon reinforced neoprene; vendor identifies material as EDPM (Ref. 75).

PLANT I. D. 1BP253 DESCRIPTION Pump

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring		Silicone	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 76 yrs @ 212	74 & 72	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-10-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS 8031-M-235-10-10 does not identify "O"-Ring. Obtained from vendor (Ref. 75).

Plant I.D.	1BP254	Description	Pump	Equip. Manuf.	Comsip
System/CCP	Containment Atmosphere Control/040	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	M-235/
Ref. Dwg. #	P&ID M-57 Sh 2 Rev 3	Foreign Print #	8031-M-235-11-9	P.O. #	M-235

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	3	104	1	120	1
Pressure (PSIG)	64	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	2.8×10^5 (Accident Gamma)	91	3.51×10^4 (Gamma)	1	5.05×10^5 (Gamma)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/6/83

Prepared By A. Gil Date 12/6/83

Reviewed By V. Pichai Date 12/7/83

PLANT I. D. 1BP254 DESCRIPTION Pump

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Diaphragm		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 34 yrs @ 212	84	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE 30 Yrs. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement Schedule).

COMMENTS 8031-M-235-11-9 identifies diaphragm as nylon reinforced neoprene; vendor identifies material as EPDM (Ref. 75).

PLANT I. D. 1BP254 DESCRIPTION Pump

SYSTEM/CCP Containment Atmosphere Control/040 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring		Silicone	TEMPERATURE (°F)	450	74 & 72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.9×10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	20 min @ 340 and 75 yrs @ 212	74 & 72	

REVISION # 1 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/7/83

FOREIGN PRINT # 8031-M-235-11-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS 8031-M-235-11-9 does not identify "O"-Ring. Obtained from vendor (Ref. 75).

Plant I.D. HV-11-041	Description Air Op. Gate Valve	Equip. Manuf. Velan
System/CCP Emergency Service Water/051	Area/Elev./Rm. # 15/201'/203	M.R./M.R. Item # P-102C/5.3
Ref. Dwg. # P&ID M-11 Sh.2 Rev. 17	Foreign Print # 8031-P-102C-35-14BR	P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	115	1	275	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	1.5	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Patrai Date 11/28/83

Comments * (Gamma)

** (Beta)

HELB Accident Ambient Conditions.

PLANT I. D. HV-11-041

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Sefton DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-041

DESCRIPTION Air Operated Gate Vaive

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril (Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Pichai DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR vendor print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-041

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lesa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-042 Description Air Op. Globe Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 15/177'/109 M.R./M.R. Item # P-102C/9.26

Ref. Dwg. # P&ID M-11 Sh.2 Rev.17 Foreign Print # 8031-P-102C-34-12BR P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 *	1	4.01×10^5 * 1.77×10^4 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 Hours	2

Overall EQ Status Acceptable (See Form #2) Comments * (Gamma)

Revision # 0 Date 7/25/83 ** (Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Parhar Date 11/28/83

PLANT I. D. HV-11-042

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-042

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	4,7,9, 13,14, & 16	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Ring, Wiper	17	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Pitchai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23599.

PLANT I. D. HV-11-042

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-042

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	56	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lepo DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-043 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 15/177'/109 M.R./M.R. Item # P-102C/9.26

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-34-12BR P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 *	1	4.01×10^5 * 1.77×10^4 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 Hours	2

Overall EQ Status Acceptable (See Form #2) Comments * (Gamma)

Revision # 0 Date 7/25/83 ** (Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Orchai Date 11/29/83

Form #1 EQRR # 3 Sheet 1 of 5

PLANT I. D. HV-11-043

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	4,7,9, 13,14, & 16	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Ring, Wiper	17	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Chehai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23599.

PLANT I. D. HV-11-043

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Rings	13, 14, 16, 17, 4, 7, & 9	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause loss of cylinder pressure differential. Valve will fail in safe direction so part not required to perform safety function.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lerma DATE 11/28/83

FOREIGN PRINT # Vendor Print #E-23599

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operators. (Kieley & Mueller Operator)

PLANT I. D. HV-11-043

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Slater DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-043

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-044 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 16/201'/207 M.R./M.R. Item # P-102C/9.23

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-35-14BR P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2} *	1	3.70×10^{6} * 1.38×10^{6} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments * (Gamma)

Revision # 0 Date 7/25/83 ** (Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Archai Date 11/29/83

Form #1 EQRR # 4 Sheet 1 of 4

PLANT I. D. HV-11-044

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-044

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Pirchan DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR vendor print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-044

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-048		Description Air Op. Globe Valve		Equip. Manuf. Rockwell	
System/CCP Emergency Service Water/051		Area/Elev./Rm. # 18/201'/279		M.R./M.R. Item # P-114A/7.24	
Ref. Dwg. # P&ID M-11 Sh. 3 Rev. 12		Foreign Print # 8031-P-114A-45-5		P.O. # P-114A	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 *	1	3.70×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments * (Gamma)

** (Beta)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Orlhan Date 12/7/83

PLANT I. D. HV-11-048

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to valve installation, not required for performance of safety function.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Letts DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-048

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Hefner DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-048

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Letton DATE 12/8/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-049 Description Air Op. Globe Valve Equip. Manuf. Rockwell

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 18/201'/279 M.R./M.R. Item # P-114A/7.22

Ref. Dwg. # P&ID M-11 Sh. 3 Rev. 12 Foreign Print # 8031-P-114A-45-5 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2} *	1	3.74×10^{5} * 1.77×10^{4} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 Hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Pichai Date 12/7/83

Comments * (Gamma)

** (Beta)

PLANT I. D. HV-11-049

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to valve installation, not required for performance of safety function.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-049

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Letton DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE (Based on EQ Evaluation) None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-049

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Leon DATE 12/8/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-071 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 15/201'/203 M.R./M.R. Item # P-102C/9.46

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-35-14BR P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	115	1	275	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	1.4	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments * (Gamma)

Revision # 0 Date 7/25/83 ** (Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Orlowski Date 11/29/83 HELB Accident Ambient Conditions

PLANT I. D. HV-11-071

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to recching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-071

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Pitchai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR Vendor Print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-071

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-072	Description Air Op. Globe Valve	Equip. Manuf. Velan
System/CCP Emergency Service Water/051	Area/Elev./Rm. # 15/177'/109	M.R./M.R. Item # P-102C/9.43
Ref. Dwg. # P&ID M-11 Sh.2 Rev. 17	Foreign Print # 8031-P-102C-34-12B"	P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 *	1	4.01×10^5 * 1.77×10^4 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 Hours	2

Overall EQ Status Acceptable (See Form #2)

Comments * (Gamma)

** (Beta)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Orhai Date 11/29/83

PLANT I. D. HV-11-072

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-072

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	5 & 8	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Gasket	3	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Ozhvai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23133.

PLANT I. D. HV-11-072 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-072 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lehn DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-073 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 15/177'/109 M.R./M.R. Item # P-102C/9.43

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-34-12BR P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 *	1	4.01×10^5 * 1.77×10^4 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 Hours	2

Overall EQ Status Acceptable (See Form #2) Comments * (Gamma)

Revision # 0 Date 7/25/83 ** (Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Bathai Date 11/29/83

PLANT I. D. HV-11-073

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Rings	13, 14, 16, 17, 4, 7, & 9	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause loss of cylinder pressure differential. Valve will fail in safe direction so part not required to perform safety function.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # Vendor Print #E-23599

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operators. (Kieley & Mueller Operator)

PLANT I. D. HV-11-073

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	4,7,9, 13,14, & 16	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Ring, Wiper	17	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Archai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23599.

PLANT I. D. HV-11-073 DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leeson DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-073 DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Depra DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-34-12BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-074 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 16/201'/207 M.R./M.R. Item # P-102C/9.46

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-35-14 BR P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 *	1	8.76×10^4 * 5.91×10^2 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status Acceptable (See Form #2) Comments * (Gamma)

Revision # 0 Date 7/25/83 ** (Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Patwai Date 11/29/83

PLANT I. D. HV-11-074

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lesa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-074

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Pichai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR vendor print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-074

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Kenn DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-078	Description Air Op. Globe Valve	Equip. Manuf. Rockwell
System/CCP Emergency Service Water/051	Area/Elev./Rm. # 18/201'/279	M.R./M.R. Item # P-114A/7.24
Ref. Dwg. # P&ID M-11 Sh. 3 Rev. 12	Foreign Print # 8031-P-114A-45-5	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 *	1	3.70×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * (Gamma)

** (Beta)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Archai Date 12/7/83

PLANT I. D. HV-11-078 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to valve installation, not required for performance of safety function.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. [illegible] DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-078

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-078

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Letow DATE 12/8/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-079 Description Air Op. Globe Valve Equip. Manuf. Rockwell

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 18/201'/279 M.R./M.R. Item # P-114A/7.22

Ref. Dwg. # P&ID M-11 Sh. 3 Rev. 12 Foreign Print # 8031-P-114A-45-5 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 *	1	3.74×10^5 * 1.77×10^4 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	6 Hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Orchard Date 12/7/83

Comments * (Gamma)

** (Beta)

PLANT I. D. HV-11-079

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to valve installation, not required for performance of safety function.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lewis DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-079

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Leeson DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-079 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lotter DATE 12/8/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-101A | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 11/177'/110 | M.R./M.R. Item # P-114A/7.20

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-114A-45-5 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2} *	1	3.95×10^{6} * 1.38×10^{6} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Orchai Date 12/7/83

Comments * (Gamma)

** (Beta)

Form #1 EQRR # 13

PLANT I. D. HV-11-101A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to installation of valve. Not required for safety function of component.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lyon DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-101A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Leeson DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-101A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lean DATE 12/8/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-101B	Description Air Op. Globe Valve	Equip. Manuf. Rockwell
System/CCP Emergency Service Water/051	Area/Elev./Rm. # 12/177'/117	M.R./M.R. Item # P-114A/7.20
Ref. Dwg. # P&ID M-11 Sh 2 Rev. 17	Foreign Print # 8031-P-114A-45-5	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 *	1	3.95×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * (Gamma)

** (Beta)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Richman Date 12/7/83

PLANT I. D. HV-11-101B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to installation of valve. Not required for safety function of component.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-101B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lopson DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-101B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lehn DATE 12/8/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-101C | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 11/177'/113 | M.R./M.R. Item # P-114A/7.20

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-114A-45-5 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 *	1	3.95×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/6/83

Prepared By D.Sexton | Date 12/6/83

Reviewed By V. Dichai | Date 12/7/83

Comments * (Gamma)

** (Beta)

Form #1 EQRR # 15 Sheet 1 of 4

PLANT I. D. HV-11-101C

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to installation of valve. Not required for safety function of component.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Sean DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-101C

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Leeson DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-101C

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. [illegible] DATE 12/7/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9115, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-101D		Description Air Op. Globe Valve		Equip. Manuf. Rockwell	
System/CCP Emergency Service Water/051		Area/Elev./Rm. # 12/177'/114		M.R./M.R. Item # P-114A/7.20	
Ref. Dwg. # P&ID M-11 Sh 2 Rev. 17		Foreign Print # 8031-P-114A-45-5		P.O. # P-114A	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 *	1	3.95×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Orchard Date 12/7/83

Comments * (Gamma

** (Beta)

PLANT I. D. HV-11-101D

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to installation of valve. Not required for safety function of component.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION #) DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D Hepton DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-101D

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-101D

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lee DATE 12/7/83

PART # PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-101E | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 11/177'/110 | M.R./M.R. Item # P-114A/7.20

Ref. Dwg. # P&ID M-11 Sh 2 Rev. 17 | Foreign Print # 8031-P-114A-45-5 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2}*	1	3.95×10^{6} * 1.38×10^{6} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Pichai Date 12/7/83

Comments * (Gamma)

** (Beta)

PLANT I. D. HV-11-101E

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to installation of valve. Not required for safety function of component.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-101E

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-101E

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Dolan DATE 12/7/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-101F | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 12/177'/117 | M.R./M.R. Item # P-114A/7.20

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-114A-45-5 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2} *	1	3.95×10^{6} * 1.38×10^{6} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2) | Comments * (Gamma)

Revision # 1 | Date 12/6/83 | ** (Beta)

Prepared By D. Sexton | Date 12/6/83

Reviewed By V. Pichai | Date 12/7/83

PLANT I. D. HV-11-101F

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to installation of valve. Not required for safety function of component.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lesan DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-101F

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Sedon DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-101F

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lee DATE 12/7/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-101G		Description Air Op. Globe Valve		Equip. Manuf. Rockwell	
System/CCP Emergency Service Water/051		Area/Elev./Rm. # 11/177'/113		M.R./M.R. Item # P-114A/7.20	
Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17		Foreign Print # 8031-P-114A-45-5		P.O. # P-114A	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2} *	1	3.95×10^{6} * 1.38×10^{6} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status	Acceptable (See Form #2)	Comments	* (Gamma)
Revision #	1		** (Beta)
Prepared By	D. Sexton		
Reviewed By	V. Orchai		
Date	12/6/83		
Date	12/6/83		
Date	12/7/83		

PLANT I. D. HV-11-101G

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to installation of valve. Not required for safety function of component.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lean DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-101G

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-101G

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lepm DATE 12/7/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-101H | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 12/177'/ 114 | M.R./M.R. Item # P-114A/7.20

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-114A-45-5 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2} *	1	3.95×10^{6} * 1.38×10^{6} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2) | Comments * (Gamma)

Revision # 1 | Date 12/6/83 | ** (Beta)

Prepared By D. Sexton | Date 12/6/83

Reviewed By V. Orchard | Date 12/7/83

PLANT I. D. HV-11-101H

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to installation of valve. Not required for safety function of component.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lenz DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-101H

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-101H

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Sean DATE 12/7/83

FOREIGN PRINT # vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-103A | Description Air Op. Globe Valve | Equip. Manuf. Anchor/Darling

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 15/177'/109 | M.R./M.R. Item # P-102A/19.1

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-102A-11-7 | P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 *	1	4.01×10^5 * 1.77×10^4 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 Hours	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/25/83

Prepared By George Grant | Date 7/25/83

Reviewed By V. Ozhai | Date 11/29/83

Comments * (Gamma)

** (Beta)

PLANT I. D. HV-11-103A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Seaton DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-11-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-11-103A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Serra DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-11-7

RECOMMENDED REPLACEMENT SCHEDULE (Based on EQ Evaluation) None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-11-103B	Description	Air Op. Globe Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Emergency Service Water/051	Area/Elev./Rm. #	15/177'/109	M.R./M.R. Item #	P-102A/19.1
Ref. Dwg. #	P&ID M-11 Sh.2 Rev. 17	Foreign Print #	8031-P-102A-11-7	P.O. #	P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 *	1	4.01×10^5 * 1.77×10^4 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 Hours	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * (Gamma)

** (Beta)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Orchai Date 11/29/83

PLANT I. D. HV-11-103B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-11-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-11-103B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Seim DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-11-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-11-104A	Description Air Op. Gate Valve	Equip. Manuf. Velan
System/CCP Emergency Service Water/051	Area/Elev./Rm. # 15/177'/102	M.R./M.R. Item # P-102C/9.24
Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17	Foreign Print # 8031-P-102C-5-14BR	P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: *(Gamma)

**(Beta)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Orthai Date 11/29/83

PLANT I. D. HV-11-104A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lepo DATE 11/28/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-104A

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	5 & 8	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Gasket	3	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orhan DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23133.

PLANT I. D. HV-11-104A

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leyse DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-104A

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-104B | Description Air Op. Gate Valve | Equip. Manuf. Velan

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # P-102C/9.24

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-102C-5-14BR | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) | Comments * (Gamma)

Revision # 0 | Date 7/25/83 | ** (Beta)

Prepared By George Grant | Date 7/25/83

Reviewed By V. Orthai | Date 11/29/83

PLANT I. D. HV-11-104B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-104B

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	5 & 8	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Gasket	3	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Pichai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23133.

PLANT I. D. HV-11-104B

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-104B

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lesa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-104C | Description Air Op. Gate Valve | Equip. Manuf. Velan

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 15/177'/102 | M.R./M.R. Item # P-102C/9.24

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-102C-5-14BR | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Pichai Date 11/29/83

Comments * (Gamma)

** (Beta)

Form #1 EQRR # 25 Sheet 1 of 5

PLANT I. D. HV-11-104C

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-104C

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	5 & 8	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Gasket	3	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Pichai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23133.

PLANT I. D. HV-11-104C

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Seppa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-104C

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-104D | Description Air Op. Gate Valve | Equip. Manuf. Velan

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # P-102C/9.24

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-102C-5-14BR | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5*	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Orthai Date 11/29/83

Comments * (Gamma)

** (Beta)

PLANT I. D. HV-11-104D

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Sexton DATE 11/28/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-104D

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	5 & 8	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Gasket	3	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Dichwan DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23133.

PLANT I. D. HV-11-104D

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lean DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-104D

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Kepa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-104E	Description Air Op. Gate Valve	Equip. Manuf. Velan
System/CCP Emergency Service Water/051	Area/Elev./Rm. # 15/177'/102	M.R./M.R. Item # P-102C/9.24
Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17	Foreign Print # 8031-P-102C-5-14 BR	P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments * (Gamma)

** (Beta)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Pichvai Date 11/29/83

PLANT I. D. HV-11-104E

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Jean DATE 11/28/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-104E

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	5 & 8	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Gasket	3	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY Y. Ozkan DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23133.

PLANT I. D. HV-11-104E

DESCRIPTION Air Cperated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lenn DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capabiiity deterioration (Ref. 81).

PLANT I. D. HV-11-104E

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Seron DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-104F | Description Air Op. Gate Valve | Equip. Manuf. Velan

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # P-102C/9.24

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-102C-5-14BR | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5*	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) | Comments * (Gamma)

Revision # 0 | Date 7/25/83 | ** (Beta)

Prepared By George Grant | Date 7/25/83

Reviewed By V. Pichai | Date 11/29/83

PLANT I. D. HV-11-104F

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Aeon DATE 11/28/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-104F

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	5 & 8	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Gasket	3	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Archai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23133.

PLANT I. D. HV-11-104F

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/05i

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lean DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-104F

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-104G | Description Air Op. Gate Valve | Equip. Manuf. Velan

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 15/177'/102 | M.R./M.R. Item # P-102C/9.24

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-102C-5-14BR | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Orhan Date 11/29/83

Comments * (Gamma)

** (Beta)

PLANT I. D. HV-11-1040 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lenz DATE 11/26/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-104G

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	5 & 8	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Gasket	3	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Richard DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23133.

PLANT I. D. HV-11-104G

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-104G

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D.	HV-11-104H	Description	Air Op. Gate Valve	Equip. Manuf.	Velan
System/CCP	Emergency Service Water/051	Area/Elev./Rm. #	16/177'/103	M.R./M.R. Item #	P-102C/9.24
Ref. Dwg. #	P&ID M-11 Sh. 2 Rev. 17	Foreign Print #	8031-P-102C-5-14BR	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	4.78×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* (Gamma)
Revision #	0	Date	7/25/83		** (Beta)
Prepared By	George Grant	Date	7/25/83		
Reviewed By	V. Rebrai	Date	11/27/83		

PLANT I. D. HV-11-104H

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	3	Buna N	TEMPERATURE (°F)	---	---	Part failure will cause cylinder differential pressure loss. Valve will fail in safe direction so part not required for valve to perform safety function.
"O" Ring, Piston to Dome	5	" "	PRESSURE (PSIG)	---	---	
"O" Ring, Rod to Piston	8	" "	RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # Vendor Dwg. #E-23133

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable, see rationale.

COMMENTS Non-Metallic parts in valve air operator. (Kieley & Mueller Operator)

PLANT I. D. HV-11-104H

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	5 & 8	BUNA N	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
Gasket	3	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orhan DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts obtained from Kieley & Mueller Vendor Print #E-23133.

PLANT I. D. HV-11-104H

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1 X 10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-104H

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lenn DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-5-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-106A | Description Air Op. Globe Valve | Equip. Manuf. Rockwell

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 15/177'/108 | M.R./M.R. Item # P-114A/7.16

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P114A-45-5 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	222	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	2.7	1
Radiation (Rads)	N/A	N/A	4.84×10^5*	1	1.95×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Pichai Date 12/7/83

Comments * (Gamma)

** (Beta)

HELB Accident Ambient Conditions

Form #1 EQRR # 31

PLANT I. D. HV-11-106A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to valve installation, not required for performance of safety function.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lefm DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-106A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lemm DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE (Based on EQ Evaluation) None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-106A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lewa DATE 12/7/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-106B	Description Air Op. Globe Valve	Equip. Manuf. Rockwell
System/CCP Emergency Service Water/051	Area/Elev./Rm. # 15/177'/108	M.R./M.R. Item # P-114A/7.16
Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17	Foreign Print # 8031-P-114A-45-5	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	222	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	2.7	1
Radiation (Rads)	N/A	N/A	4.84×10^5*	1	1.95×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Pichai Date 12/7/83

Comments * (Gamma)

** (Beta)

HELB Accident Ambient Conditions

PLANT I. D. HV-11-106B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	---	---	Part removed prior to valve installation, not required for performance of safety function.
			PRESSURE (PSIG)	---	---	
			RADIATION (Rads)	---	---	
			HUMIDITY (%)	---	---	
			AGING ANALYSIS	---	---	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Serra DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. HV-11-106B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-45-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-106B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	9,10,11, 12, & 28	See Comments	TEMPERATURE (°F)	--	--	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY D. Lyon DATE 12/7/83

FOREIGN PRINT # Vendor drawings #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part material not identified on vendor drawing. However, part failure will not impede safety function (see rationale).

Plant I.D. HV-11-121 | Description Air Op. Gate Valve | Equip. Manuf. Velan

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 15/201'/203 | M.R./M.R. Item # P-102C/9.37

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-102C-35-14BR | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	115	1	275	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	1.5	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	1.18×10^5 * 5.91×10^2 **	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status Acceptable (See Form #2) | Comments * (Gamma)

Revision # 0 | Date 7/25/83 | ** (Beta)

Prepared By George Grant | Date 7/25/83

Reviewed By V. Pichai | Date 11/29/83 | HELB Accident Ambient Conditions

PLANT I. D. HV-11-121

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N [illegible]	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/18/83

PREPARED BY V. Pichai DATE 10/18/83

REVIEWED BY D. Lyon DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-11-121

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orchai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR vendor print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-121

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-123	Description Air Op. Gate Valve	Equip. Manuf. Velan
System/CCP Emergency Service Water/051	Area/Elev./Rm. # 15/201'/203	M.R./M.R. Item # P-102C/9.23
Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17	Foreign Print # 8031-P-102C-35-14BR	P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	115	1	275	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	1.5	1
Radiation (Rads)	N/A	N/A	5.09×10^5 *	1	1.18×10^5 * 5.91×10^2 **	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status Acceptable (See Form #2)

Comments * (Gamma)

** (Beta)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Pichai Date 11/29/83

HELB Accident Ambient Conditions

PLANT I. D. HV-11-123

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/82

REVIEWED BY D. Shum DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81)

PLANT I. D. HV-11-123

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orchard DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR vendor print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-123 DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Aeton DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-124	Description Air Op. Gate Valve	Equip. Manuf. Velan
System/CCP Emergency Service Water/051	Area/Elev./Rm. # 16/201'/207	M.R./M.R. Item # P-102C/9.41
Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17	Foreign Print # 8031-P-102C-35-14BR	P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 *	1	3.70×10^6 * 1.38×10^6 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments * (Gamma)

** (Beta)

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Pichai Date 11/29/83

PLANT I. D. HV-11-124

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY P. Lem DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-124

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orchard DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR vendor print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-124

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-125 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 16/201'/207 M.R./M.R. Item # P-102C/9.23

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-35-14BR P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 *	1	8.76×10^4 * 5.91×10^2 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status Acceptable (See Form #2) Comments * (Gamma)

Revision # 0 Date 7/25/83 ** (Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Oichai Date 11/29/83

PLANT I. D. HV-11-125

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81)

PLANT I. D. HV-11-125

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orchai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR vendor print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-125

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lenn DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Form #2

EQRR # 36

Plant I.D. HV-11-126 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 16/201'/207 M.R./M.R. Item # P-102C/9.46

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-35-14BR P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2}*	1	8.76×10^{4} * 5.91×10^{2} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status Acceptable (See Form #2) Comments * (Gamma)

Revision # 0 Date 7/25/83 ** (Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Orehan Date 11/29/83

PLANT I. D. HV-11-126

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 11/15/83

PREPARED BY V. Pichai DATE 11/15/83

REVIEWED BY D. Lenz DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-126

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR vendor print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-126 DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lesson DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-127 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 16/201'/207 M.R./M.R. Item # P-102C/9.41

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-35-14BR P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2}*	1	3.70×10^{6} * 1.38×10^{6} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments * (Gamma)

Revision # 0 Date 7/25/83 ** (Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Pitchai Date 11/28/83

Form #1 EQRR # 38 Sheet 1 of 4

PLANT I. D. HV-11-127

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Lemon DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation).

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-127

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orchard DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR vendor print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-127

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/31/83

PREPARED BY V. Pichai DATE 10/31/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-35-14BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-11-128 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 16/201'/207 M.R./M.R. Item # P-102C/9.41

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-35-14BP P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2} *	1	3.70×10^{6} * 1.38×10^{6} **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments *(Gamma)

Revision # 0 Date 7/25/83 **(Beta)

Prepared By George Grant Date 7/25/83

Reviewed By V. Archai Date 11/28/83

PLANT I. D. HV-11-128 DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Braided Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Cichan DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-130-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. HV-11-128 DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Piston Packings	5	Nitril Compound 413	TEMPERATURE (°F)	--	--	Part deterioration may cause loss of dp across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orchard DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-130-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Part information obtained from INVAR Vendor Print #B-CPO-9015A, Rev. 0.

PLANT I. D. HV-11-128 DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Emergency Service Water/051 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	11	S.S. 316 and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 11/28/83

PREPARED BY D. Sexton DATE 11/28/83

REVIEWED BY V. Orchard DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-130-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 0029 Description Check Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 15/201'/203 M.R./M.R. Item # P-102C/14.14

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102C-4-10 P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5	1	$1/38 \times 10^6$* 5.29×10^6**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments * (Beta)

Revision # 1 Date 12/6/83 ** (Gamma)

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Pitchai Date 12/7/83

Form #1 EQRR # 40 Sheet 1 of 2

PLANT I. D. 0029 DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Pathak DATE 11/30/83

FOREIGN PRINT # 8031-P-102C-4-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 0036 Description Check Valve Equip. Manuf. Anchor/Darli

System/CCP Emergency Service Water/051 Area/Elev./Rm. # / 201' / 279 M.R./M.R. Item # P102A/14.26

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102A-136-3 P.O. # P102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2	1	1.38×10^6* 3.70×10^6**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years		180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments *(Beta)

Revision # 1 Date 12/6/83 **(Gamma)

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Pirhai Date 12/7/83

PLANT I. D. 0036 DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water/051 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S. S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	---	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lem DATE 12/7/83

FOREIGN PRINT # 8031-P-102[illegible]-136-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 0036

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water/051

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18A	S.S. and asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lester DATE 12/7/83

FOREIGN PRINT # 8031-P-102A-136-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 0036 DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water/051 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Inner)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lam DATE 12/7/83

FOREIGN PRINT # 8031-P-102A-136-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Materials capabilities excee required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

PLANT I. D. 0036 DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water/051 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Outer)	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 0 DATE 12/1/83

PREPARED BY V. Pichai DATE 12/1/83

REVIEWED BY D. Lehn DATE 12/7/83

FOREIGN PRINT # 8031-P-102A-136-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Materials capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration (Ref. 81).

Plant I.D. 0062		Description Check Valve		Equip. Manuf. Anchor/Darling	
System/CCP Emergency Service Water/051		Area/Elev./Rm. # 15/201'/203		M.R./M.R. Item # P-102A/14.22	
Ref. Dwg. # P&ID M-11 Sh.2 Rev. 17		Foreign Print # 8031-P-102A-133-4		P.O. # P-102A	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 (Gamma)	1	4.98×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	6 Hours	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	7/25/83		
Prepared By	George Grant	Date	7/25/83		
Reviewed By	V. Pichai	Date	11/29/83		

PLANT I. D. 0062 DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
	18A	S.S.& Asbestos (Flexitallic)	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Cherchai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-133-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 0062

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Inner)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Archai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-133-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

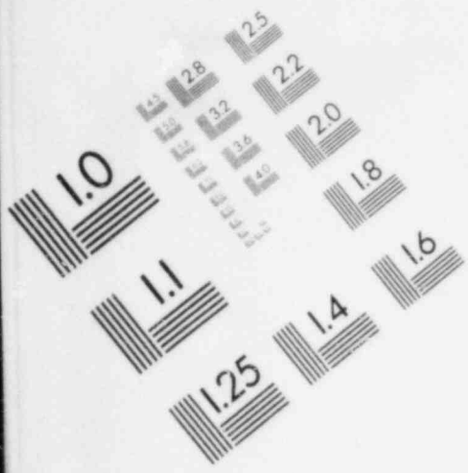
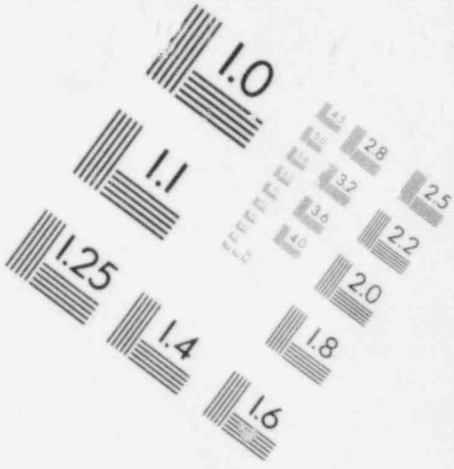
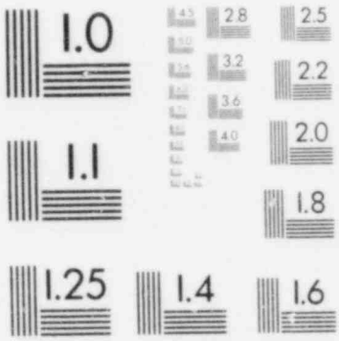
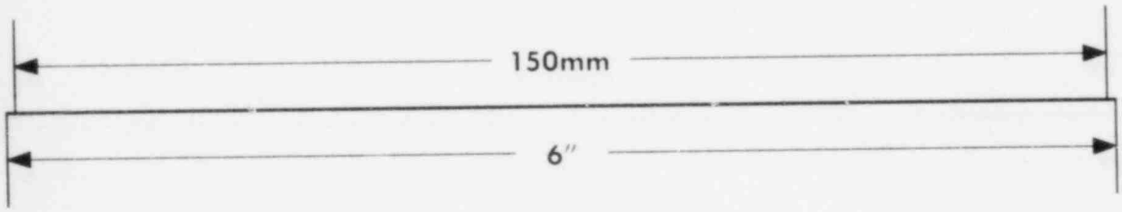
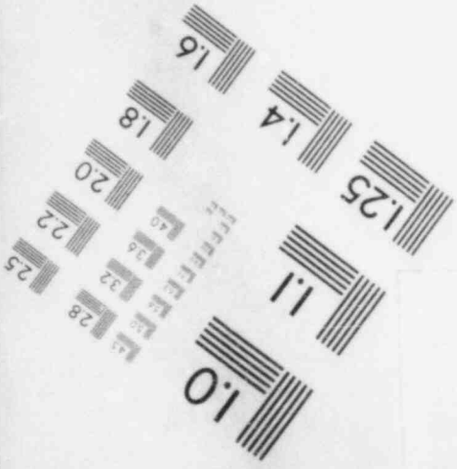


IMAGE EVALUATION TEST TARGET (MT-3)









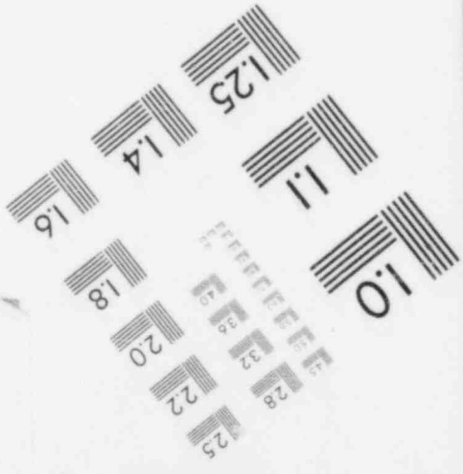
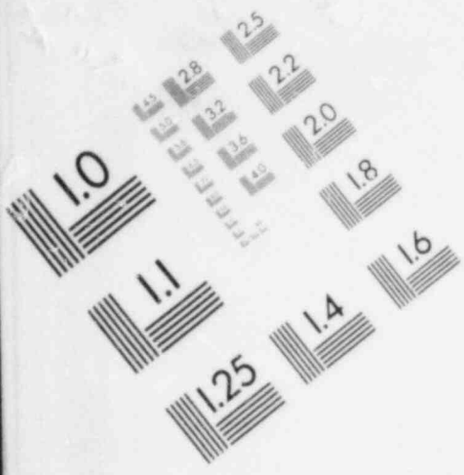
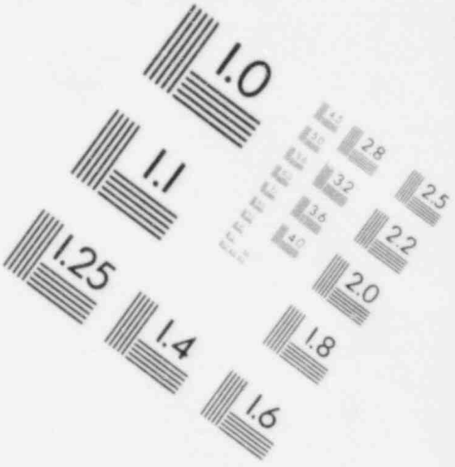
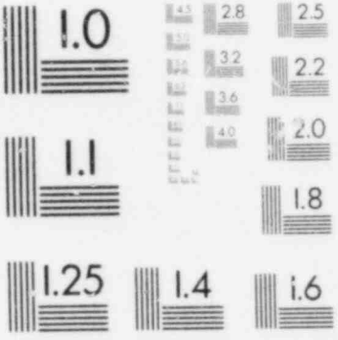
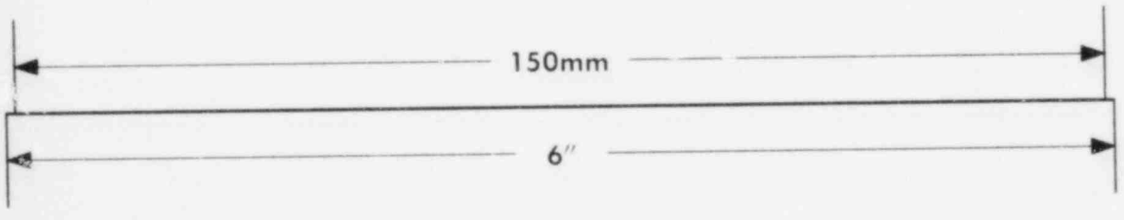


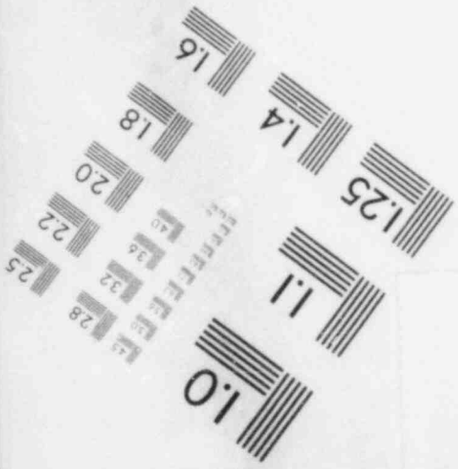
IMAGE EVALUATION
TEST TARGET (MT-3)

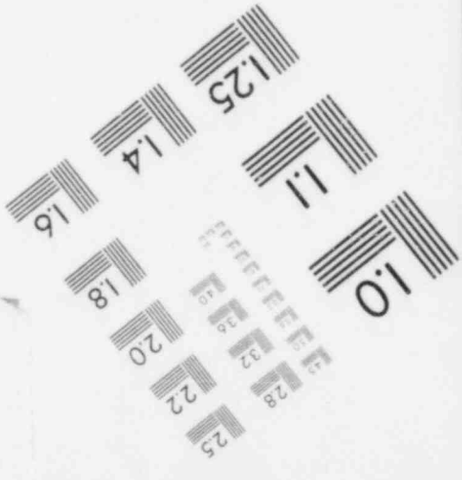












PLANT I. D. 0062

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Outer)	16-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Orchan DATE 11/29/83

FOREIGN PRINT # 8031-I-102A-133-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. 1007 Description Check Valve Equip. Manuf. Anchor/Darling

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 15/201'/203 M.R./M.R. Item # P-102A/14.24

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102A-135-4 P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Pathai Date 11/29/83

PLANT I. D. 1007

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Arhan DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE (Based on EQ Evaluation) None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1007

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Inner)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Orchard DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. 1007

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Outer)	16-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Orchard DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. 1009 Description Check Valve Equip. Manuf. Anchor/Darling

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 16/201'/207 M.R./M.R. Item # P-102A/14.24

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102A-135-4 P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	3.70×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Orchai Date 11/29/83

PLANT I. D. 1009

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Archwai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE (Based on EQ Evaluation) None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1009 DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Inner)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Orchai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. 1009

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Outer)	16-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Pathak DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. 1011 Description Check Valve Equip. Manuf. Anchor/Darling

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 15/201'/203 M.R./M.R. Item # P-102A/14.24

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102A-135-4 P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	115	1	115	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	5.09×10^5	1	1.38×10^6* 4.78×10^6**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments * (Beta)

Revision # 1 Date 12/6/83 ** (Gamma)

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Orchai Date 12/7/83

Form #1 EQRR # 45 Sheet 1 of 4

PLANT I. D. 1011 DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Orchai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 1011

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Inner)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Archai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. 1011

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Outer)	16-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Ochai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. 1012 Description Check Valve Equip. Manuf. Anchor/Darling

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 16/201'/207 M.R./M.R. Item # P-102A/14.20

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-102A-135-4 P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	93	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	3.70×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Pichai Date 11/29/83

PLANT I. D. 1012

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Pichai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I D. 1012

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Inner)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Archai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. 1012

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Outer)	16-1	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Orchai DATE 11/29/83

FOREIGN PRINT # 8031-P-102A-135-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. 1043 Description Check Valve Equip. Manuf. Velan

System/CCP Emergency Service Water/051 Area/Elev./Rm. # 16/201'/207 M.R./M.R. Item # P-102/14.26

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 Foreign Print # 8031-P-1020-4-10 P.O. # P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2 (Gamma)	1	3.70×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/25/83

Prepared By George Grant Date 7/25/83

Reviewed By V. Archan Date 11/29/83

PLANT I. D. 1043

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Archuai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-4-10

RECOMMENDED REPLACEMENT SCHEDULE (Based on EQ Evaluation) None

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D. 1044 | Description Check Valve | Equip. Manuf. Velan

System/CCP Emergency Service Water/051 | Area/Elev./Rm. # 16/201'/207 | M.R./M.R. Item # P-102C/14.5

Ref. Dwg. # P&ID M-11 Sh. 2 Rev. 17 | Foreign Print # 8031-P-102C-4-10 | P.O. # P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	110	3	104	1	120	1
Pressure (PSIG)	137	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^2	1	1.38×10^6* 3.70×10^6**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By V. Orhai Date

Comments * (Beta)

** (Gamma)

PLANT I. D. 1044

DESCRIPTION Check Valve

SYSTEM/CCP Emergency Service Water /051

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	7	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 9/30/83

PREPARED BY B. R. Patel DATE 9/30/83

REVIEWED BY V. Pichai DATE 11/29/83

FOREIGN PRINT # 8031-P-102C-4-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Plant I.D.	HV-13- 106	Description	Motor Operated Gate Valve	Equip. Manuf.	Velan
System/CCP	Reactor Enclosure Cooling Water/055	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	P-102C/5.19
Ref. Dwg. #	P&ID M13 Rev. 12	Foreign Print #	8031-P-102C-6-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	144	3	120	1	120	1
Pressure (PSIG)	180	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	7/25/83		
Prepared By	George Grant	Date	7/25/83		
Reviewed By	D. G. Dean	Date	11/28/83		

PLANT I. D. HV-13- 106 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Enclosure Cooling Water/055 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	—	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY L. E. Lear DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-6-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-13-106 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Enclosure Cooling Water/055 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comment)	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY D. G. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-6-14

RECOMMENDED REPLACEMENT SCHEDULE none (based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D.	HV-13- 107	Description	Motor Operated Gate Valve	Equip. Manuf.	Velan
System/CCP	Reactor Enclosure Cooling Water/055	Area/Elev./Rm. #	15/217'/309	M.R./M.R. Item #	P-102C/5.19
Ref. Dwg. #	P&ID M13 Rev. 12	Foreign Print #	8031-P-102C-6-14	P.O. #	P-102C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	144	3	120	1	120	1
Pressure (PSIG)	180	3	-¼" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	0	Date	7/25/83		
Prepared By	George Grant	Date	7/25/83		
Reviewed By	D. E. Logan	Date	11/28/83		

PLANT I. D. HV-13-107 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Enclosure Cooling Water/055 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	31	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	31	
			HUMIDITY (%).	N/A	27	
			AGING ANALYSIS	N/A (See comments	—	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY D. G. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-6-14

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 31)

PLANT I. D. HV-13- 107

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Reactor Enclosure Cooling Water/055

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comment)	-	

REVISION # 0 DATE 10/5/83

PREPARED BY V. Pichai DATE 10/5/83

REVIEWED BY D. G. Lewis DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-6-14

RECOMMENDED REPLACEMENT SCHEDULE none (based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions

Plant I.D. HV-59-101 Description Motor Operated Globe Valve Equip. Manuf. Rockwell

System/CCP Primary Containment Instrument Gas/058 Area/Elev./Rm. # 16C/238'/Z-5 M.R./M.R. Item # P-114A/11.1

Ref. Dwg. # P&ID M-59 Rev. 10 Foreign Print # 8031-P-114A-43-7 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	55	3	75	1	44	1
Radiation (Rads)	N/A	N/A	8.8×10^4 (Gamma) 5.5×10^6 (Neutron)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By D. Lewis Date 11/28/83

PLANT I. D. HV-59-101 DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-43-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D.	HV-59-102	Description	Air Operated Valve	Equip. Manuf.	Rockwell
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	16/217'/307	M.R./M.R. Item #	P-114A/8.13
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114A-46-11	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	120	1	264	1
Pressure (PSIG)	55	3	- 1/4" W.g.	1	1,4	1
Radiation (Rads)	N/A	N/A	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 1 Date 12/8/83

Prepared By B. R. Patel Date 12/8/83

Reviewed By D. [illegible] Date 12/8/83

PLANT I. D. HV-59-102 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	—	—	Part removed prior to valve installation not required for valve to perform safety function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY QA/Cuman DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-59-102 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY P.A. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-59-102

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY PAKumar DATE 12/8/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D. HV-59-129A	Description Air Operated Globe Valve	Equip. Manuf. Rockwell
System/CCP Primary Containment Instrument Gas/058	Area/Elev./Rm. # 16/217'/307	M.R./M.R. Item # P-114A/8.13
Ref. Dwg. # P&ID M-59 Rev. 10	Foreign Print # 8031-P-114A-46-10	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	120	1	264	1
Pressure (PSIG)	125	3	- 1/4" W.g.	1	1.4	1
Radiation (Rads)	N/A	N/A	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Comments

Revision # 1 Date 12/8/83

Prepared By B.R. Patel Date 12/8/83

Reviewed By [illegible] Date 12/8/83

PLANT I. D. HV-59-129A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	—	—	Part removed prior to valve installation not required for valve to perform safety function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-59-129A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-59-129A

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY [signature] DATE 12/8/83

FOREIGN PRINT # Vendor Dwgs. #DK9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-59-129B	Description	Air Operated Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	15/217'/306	M.R./M.R. Item #	P-114A/8.13
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114A-46-11	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Cod Number
Temperature (°F)	150	3	120	1	264	1
Pressure (PSIG)	125	3	- 1/4" W.g.	1	1.4	1
Radiation (Rads)	N/A	N/A	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 1 Date 12/8/83

Prepared By B.R. Patel Date 12/8/83

Reviewed By [signature] Date 12/8/83

PLANT I. D. HV-59-129B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	—	—	Part removed prior to valve installation not required for valve to perform safety function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY [signature] DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-59-129B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY [signature] DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-59-129B

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY A Kumar DATE 12/8/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D.	HV-59-131	Description	Air Operated Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	12/253'/406	M.R./M.R. Item #	P-114A/8.13
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114A-46-11	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	125	3	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	6.91×10^7 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	
Revision #	1	Date	12/8/83		
Prepared By	B.R. Patel	Date	12/8/83		
Reviewed By	P.M. Kumar	Date	12/8/83		

PLANT I. D. HV-59-131 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058 REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	—	—	Part removed prior to valve installation not required for valve to perform safety function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-59-131

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-1)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-59-131

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY PAKumar DATE 12/8/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing. However, part failure will not impede safety function (See Rationale).

Plant I.D. HV-59-135 Description Air Operated Globe Valve Equip. Manuf. Rockwell

System/CCP Primary Containment Instrument Gas/058 Area/Elev./Rm. # 15/217'/309 M.R./M.R. Item # P-114A/8.13

Ref. Dwg. # P&ID M-59 Rev. 10 Foreign Print # 8031-P-114A-46-11 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	120	1	264	1
Pressure (PSIG)	125	3	- 1/4" W.g.	1	1.4	1
Radiation (Rads)	N/A	N/A	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 1 Date 12/8/83

Prepared By B.R. Patel Date 12/8/83

Reviewed By A Kumar Date 12/8/83

PLANT I. D. HV-59-135

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS N/A

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Protector	22	Plastic	TEMPERATURE (°F)	—	—	Part removed prior to valve installation not required for valve to perform safety function.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

PLANT I. D. HV-59-135 DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	7	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-46-11

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-59-135

DESCRIPTION Air Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O"-Ring	9, 10, 11, 12 & 28	See Comments	TEMPERATURE (°F)	-	-	Deterioration of part may cause loss of differential pressure across air actuator cylinder. Valve will fail to safe direction.
			PRESSURE (PSIG)	-	-	
			RADIATION (Rads)	-	-	
			HUMIDITY (%)	-	-	
			AGING ANALYSIS	-	-	

REVISION # 0 DATE 12/6/83

PREPARED BY V. Pichai DATE 12/6/83

REVIEWED BY G.A. Kumar DATE 12/8/83

FOREIGN PRINT # Vendor Dwgs. #DH9063, DH9116, DK5320, and DK5325 (Fisher Actuators)

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Parts material not identified on vendor drawing, However, part failure will not impede safety function (See Rationale).

Plant I.D. PSV-59-152A	Description Pressure Relief Valve	Equip. Manuf. Crosby
System/CCP Primary Containment Instrument Gas/058	Area/Elev./Rm. # 15/217'/304	M.R./M.R. Item # M-204C/1
Ref. Dwg. # P&ID M-59 Rev. 10	Foreign Print # 8031-M-204C-8-1	P.O. # M-204C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2}**	1	1.38×10^{6}* 4.15×10^{6}**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments * Beta

** Gamma

Revision # 1 Date 12/8/83

Prepared By B.R. Patel Date 12/8/83

Reviewed By P.A. Cuman Date 12/8/83

Plant I.D. HV-59-151A | Description Motor Operated Globe Valve | Equip. Manuf. Rockwell

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # 15/217'/402 | M.R./M.R. Item # P-114A/15.2

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # 8031-P-114A-159-2 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.5×10^4**	1	1.38×10^6* 4.15×10^6**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By [signature] Date 12/8/83

Comments * Beta

** Gamma

PLANT I. D. HV-59-151A

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-159-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Plant I.D.	HV-59-151B	Description	Motor Operated Globe Valve	Equip. Manuf.	Rockwell
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	12/217'/402	M.R./M.R. Item #	P-114A/15.2
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114A-159-2	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4**	1	1.38×10^6* 4.15×10^6**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Beta
Revision #	1	Date	12/8/83		** Gamma
Prepared By	B.R. Patel	Date	12/8/83		
Reviewed By	A Kumar	Date	12/8/83		

PLANT I. D. HV-59-151B

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (see comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY P.A. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-159-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. PSV-59-152A

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	26	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-204C-8-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. PSV-59-152B		Description Pressure Relief Valve		Equip. Manuf. Crosby	
System/CCP Primary Containment Instrument Gas/058		Area/Elev./Rm. # 12/217'/307		M.R./M.R. Item # M-204C/1	
Ref. Dwg. # P&ID M-59 Rev. 10		Foreign Print # 8031-M-204C-8-1		P.O. # M-204C	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ Condition	Reference Code Number
Temperature (°F)	150	3	120	1	120	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5**	1	1.38×10^6* 4.55×10^6**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/8/83

Prepared By B.R. Patel Date 12/8/83

Reviewed By AKumar Date 12/8/83

Comments * Beta

** Gamma

PLANT I. D. PSV-59-152B

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	26	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY Pakman DATE 11/28/83

FOREIGN PRINT # 8031-M-204C-8-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. PSV-59-153A	Description Pressure Relief Valve	Equip. Manuf. Crosby
System/CCP Primary Containment Instrument Gas/058	Area/Elev./Rm. # 15/217'/304	M.R./M.R. Item # M-204C/2
Ref. Dwg. # P&ID M-59 Rev. 10	Foreign Print # 8031-M-204C-8-1	P.O. # M-204C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	104	1	120	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.78×10^{2}**	1	1.38×10^{6}* 4.15×10^{6}**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Beta

** Gamma

Revision # 1 Date 12/8/83

Prepared By B.R. Patel Date 12/8/83

Reviewed By A Kumar Date 12/8/83

PLANT I. D. PSV-59-153A

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	26	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY Akumar DATE 11/28/83

FOREIGN PRINT # 8031-M-204C-8-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. PSV-59-153B | Description Pressure Relief Valve | Equip. Manuf. Crosby

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # 12/217'/ 307 | M.R./M.R. Item # M-204C/2

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # 8031-M-204C-8-1 | P.O. # M-204C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	120	1	120	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	8.46×10^5**	1	1.38×10^6* 4.55×10^6**	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/8/83

Prepared By B. R. Patel Date 12/8/83

Reviewed By PAlcuan Date 12/8/83

Comments * Beta

** Gamma

Form #1 EQRR # 12 Sheet 1 of 2

PLANT I. D. PSV-59-153B

DESCRIPTION Pressure Relief Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring	26	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/10/83

PREPARED BY B. R. Patel DATE 11/10/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-204C-8-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. XV-59-140A Description Explosion Operated Gate Valve Equip. Manuf. _____

System/CCP Primary Containment Instrument Gas/058 Area/Elev./Rm. # 12/253'/ M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-59 Rev. 10 Foreign Print # _____ P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PA Kumar Date 11/28/83

Form #1 EQRR # 13 Sheet 1 of ___

Plant I.D. XV-59-140B Description Explosion Operated Gate Valve Equip. Manuf. _____

System/CCP Primary Containment Instrument Gas/058 Area/Elev./Rm. # 12/253'/ M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-59 Rev. 10 Foreign Print # _____ P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PAKumar Date 11/28/83

Form #1 EQRR # 14 Sheet 1 of ___

Plant I.D. XV-59-140C Description Explosion Operated Gate Valve Equip. Manuf. _____

System/CCP Primary Containment Instrument Gas/058 Area/Elev./Rm. # 12/253'/ M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-59 Rev. 10 Foreign Print # _____ P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PA Kumar Date 11/28/83

Form #1 EQRR # 15 Sheet 1 of ___

Plant I.D. XV-59-140D | Description Explosion Operated Gate Valve | Equip. Manuf.

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # 12/253'/ | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status | Comments

Revision # 0 | Date 7/26/83

Prepared By George Grant | Date 7/26/83

Reviewed By P A Kumar | Date 11/28/83

Plant I.D. XV-59-140E Description Explosion Operated Gate Valve Equip. Manuf. _____

System/CCP Primary Containment Instrument Gas/058 Area/Elev./Rm. # 12/253'/ M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-59 Rev. 10 Foreign Print # _____ P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status _____ Comments _____

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PA Kumar Date 11/28/83

Plant I.D. XV-59-141A | Description Elec. Op. Ball Valve | Equip. Manuf.

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # 12/253'/ | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status | Comments

Revision # 0 | Date 7/26/83

Prepared By George Grant | Date 7/26/83

Reviewed By A Kumar | Date 11/28/83

Form #1 EQRR # 18 Sheet 1 of

Plant I.D. XV-59-141B | Description Elec. Op. Ball Valve | Equip. Manuf.

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # 12/253'/ | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PHCuan Date 11/28/83

Comments

Form #1 EQRR # 19 Sheet 1 of

Plant I.D. XV-59-141C | Description Elec. Op. Ball Valve | Equip. Manuf.

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # 12/253'/ | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status

Comments

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By P A Kumar Date 11/28/83

Form #1 EQRR # 20 Sheet 1 of

Plant I.D. XV-59-141D | Description Elec. Op. Ball Valve | Equip. Manuf.

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # 12/253'/ | M.R./M.R. Item # M-001/

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # | P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status | Comments

Revision # 0 | Date 7/26/83

Prepared By George Grant | Date 7/26/83

Reviewed By AA Kumar | Date 11/28/83

Form #1 EQRR # 21 Sheet 1 of __

Plant I.D. XV-59-141E	Description Elec. Op. Ball Valve	Equip. Manuf.
System/CCP Primary Containment Instrument Gas/058	Area/Elev./Rm. # 12/253'/	M.R./M.R. Item # M-001/
Ref. Dwg. # P&ID M-59 Rev. 10	Foreign Print #	P.O. # M-001

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	N/A	56		1		1
Pressure (PSIG)	N/A	56		1		1
Radiation (Rads)	N/A	56		1		1
Humidity (%)	N/A	56		1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status

Comments

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By P.A. Kumar Date 11/28/83

Plant I.D.	1001	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	15C/217'/Z-6	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	330	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.5×10^5 (Neutron) 3.7×10^6 (Gamma)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PAKumar Date 11/28/83

PLANT I. D. 1001 DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect on valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY A. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	1005A	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	/243'/Z-5	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	8.8×10^6 (Gamma) 5.5×10^6 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By A Kumar Date 11/28/83

PLANT I. D. 1005A

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P.H. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	1005B	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	/245'/Z-5	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	8.8×10^6 (Gamma) 5.5×10^6 (Neutrons)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1		1
Submergence					No	13
Required Operating Time			40 Years	2	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By A Kumar Date 11/28/83

PLANT I. D. 1005B

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	1023E	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	/294'/Z-2	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A		1		1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PAKenan Date 11/28/83

PLANT I. D. 1023E

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY RK Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1023H | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # /294'/Z-2 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1		1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PAKumar Date 11/28/83

PLANT I. D. 1023H

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY PHCuman DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1023K | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # /283'/Z-2 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PAKuman Date 11/28/83

PLANT I. D. 1023K

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	1023M	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	/280'/Z-2	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status: Acceptable (See Form#2)

Comments: Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PAKumar Date 11/28/83

PLANT I. D. 1023M

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. K. Patel DATE 10/14/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	1023S	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	/284''Z-2	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	Valve subject to chemical spray
Revision #	0	Date	7/26/83		
Prepared By	George Grant	Date	7/26/83		
Reviewed By	PA Kumar	Date	11/28/83		

PLANT I. D. 1023S

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1024E | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # /294'/Z-2 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By H A Kumar Date 11/28/83

PLANT I. D. 1024E

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1024H | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # /294'/Z-2 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # 8031-P-114B16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By AKumar Date 11/28/83

PLANT I. D. 1024H

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1024K | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # /283'/Z-2 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # 8031-P-114B16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By P.K. Kumar Date 11/28/83

PLANT I. D. 1024K

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	1024M	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	/280'/Z-2	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) $1,18 \times 10^9$ (Beta)	1
Humidity (%)	N/A	N/A	100	1		1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Comments Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By P.H. Kumar Date 11/28/83

PLANT I. D. 1024M

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY P.N. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D. 1024S | Description Check Valve | Equip. Manuf. Borg Warner

System/CCP Primary Containment Instrument Gas/058 | Area/Elev./Rm. # /284'/Z-2 | M.R./M.R. Item # P-114B/5.5

Ref. Dwg. # P&ID M-59 Rev. 10 | Foreign Print # 8031-P-114B-16-10 | P.O. # P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	1.8×10^7 (Gamma) 1.1×10^7 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1		1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2) | Comments Valve subject to chemical spray

Revision # 0 | Date 7/26/83

Prepared By George Grant | Date 7/26/83

Reviewed By A Kumar | Date 11/28/83

PLANT I. D. 1024S

DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	1056	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	/254'/Z-5	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	8.8×10^4 (Gamma) 5.5×10^6 (Neutron)	1	4.68×10^6 (Gamma) 5.92×10^7 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status	Acceptable (See Form #2)	Comments	Valve subject to chemical spray
Revision #	0	Date	7/26/83
Prepared By	George Grant	Date	7/26/83
Reviewed By	PA Kumar	Date	11/28/83

PLANT I. D. 1056 DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	1112	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	/245'/Z-5	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	8.8×10^4 (Gamma) 5.5×10^6 (Neutron)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1		1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By JH Cuman Date 11/28/83

PLANT I. D. 1112 DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY AKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	1128	Description	Check Valve	Equip. Manuf.	Borg Warner
System/CCP	Primary Containment Instrument Gas/058	Area/Elev./Rm. #	/240'/Z-5	M.R./M.R. Item #	P-114B/5.5
Ref. Dwg. #	P&ID M-59 Rev. 10	Foreign Print #	8031-P-114B-16-10	P.O. #	P-114B

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	3	150	1	340	1
Pressure (PSIG)	125	3	75	1	44	1
Radiation (Rads)	N/A	N/A	8.8×10^4 (Gamma) 5.5×10^6 (Neutron)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	N/A	N/A	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Valve subject to chemical spray

Revision # 0 Date 7/26/83

Prepared By George Grant Date 7/26/83

Reviewed By PAlcuaz Date 11/28/83

PLANT I. D. 1128 DESCRIPTION Check Valve

SYSTEM/CCP Primary Containment Instrument Gas/058 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cap Plug	20	Polyethylene	TEMPERATURE (°F)	—	—	Parts # 20 and 28 are not valve parts. They will be removed before valve is installed, no effect in valve performance.
Cap Plug	28	Polyethylene	PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 10/14/83

PREPARED BY B. R. Patel DATE 10/14/83

REVIEWED BY H Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114B-16-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS

Plant I.D.	FDC-76-192A	Description	Elec.-Hydr. Op. Damper	Equip. Manuf.	American Warming & Ventilating, Inc.
System/CCP	Reactor Enclosure HVAC (Recirc. Mode Only)/065	Area/Elev./Rm. #	15/313'/605	M.R./M.R. Item #	M-113/04
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 9	Foreign Print #	8031-M-113-180-5 & 8031-M-113-186-6	P.O. #	M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	23" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	3.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 7/30/83

Prepared By B. R. Patel Date 7/30/83

Reviewed By D. Leyn Date 11/28/83

Comments: * Accident and Normal Gamma

** Accident Beta

PLANT I. D. FDC-76-192A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	31	Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%).	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PA Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-180-5
8031-M-113-186-6

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. FDC-76-192A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	24	Neoprene Sponge	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY RAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-180-5
8031-M-113-186-6

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. FDC-76-192A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	25	EPT	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	34 years @ 165°F	76	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-180-5
8031-M-113-186-6

RECOMMENDED REPLACEMENT SCHEDULE 20 years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule.

COMMENTS

Plant I.D.	FDC-76-192B	Description	Elec.-Hydr. Op. Damper	Equip. Manuf.	American Warming & Ventilating, Inc.
System/CCP	Reactor Enclosure HVAC (Recirc. Mode Only)/065	Area/Elev./Rm. #	15/313'/605	M.R./M.R. Item #	M-113/04
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 9	Foreign Print #	8031-M-113-180-5 & 8031-M-113-186-6	P.O. #	M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	23" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * Accident and Normal Gamma

** Accident Beta

Revision # 0 Date 7/30/83

Prepared By B. R. Patel Date 7/30/83

Reviewed By D Lepa Date 11/28/83

PLANT I. D. FDC-76-192B

DESCRIPTION Elec.-Hydr. Operated Damper

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	31	Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper, if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY [signature] DATE 11/28/83

FOREIGN PRINT # 8031-M-113-180-5
8031-M-113-186-6

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on form #1.

PLANT I. D. FDC-76-192B

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	24	Neoprene Sponge	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper, if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY Pitkumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-180-5
8031-M-113-186-6

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. FDC-76-192B

DESCRIPTION Elec.-Hydr. Operated Damper

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	25	EPT	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	34 years @ 165°F	76	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-180-5
8031-M-113-186-6

RECOMMENDED REPLACEMENT SCHEDULE 20 years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule.

COMMENTS

Plant I.D.	HD-76-183A	Description	Elec.-Hydr. Op. Damper	Equip. Manuf.	American Warming & Ventilating, Inc.
System/CCP	Reactor Enclosure HVAC (Recirc. Mode Only)/065	Area/Elev./Rm. #	15/313'/605	M.R./M.R. Item #	M-113/04
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 9	Foreign Print #	8031-M-113-188-7 & 8031-M-113-45-13 BR	P.O. #	M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	23" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 Date 7/30/83

Prepared By B. R. Patel Date 7/30/83

Reviewed By D. Lurtz Date 11/28/83

Comments: * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HD-76-183A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	31	Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper, if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY [signature] DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13BR

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. HD-76-183A

DESCRIPTION Elec.-Hydr. Operated Damper

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	24	Neoprene Sponge	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper, if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY P.A. Kissman DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. HD-76-183A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	25	EPT	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	34 years @ 165°F	76	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY A.K. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE 20 years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule.

COMMENTS

Plant I.D. HD-76-183B | Description Elec.-Hydr. Op. Damper | Equip. Manuf. American Warming & Ventilating, Inc.

System/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065 | Area/Elev./Rm. # 15/313'/605 | M.R./M.R. Item # M-113/04

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-188-7 & 8031-M-113-45-13 BR | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	23" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/30/83

Prepared By B. R. Patel | Date 7/30/83

Reviewed By D. Leta | Date 11/28/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HD-76-183B

DESCRIPTION Elec.-Hydr. Operated Damper

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	31	Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper, if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY [signature] DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. HD-76-183B

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	24	Neoprene Sponge	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper, if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY H Cannon DATE 11/28/83

FOREIGN PRINT # 8031-M-112-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. HD-76-183B

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	25	EPT	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	34 years @ 165°F	76	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY Falkenman DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE 20 years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule.

COMMENTS

Plant I.D. HD-76-193A | Description Elec.-Hydr. Op. Damper | Equip. Manuf. American Warming Ventilating, Inc.

System/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065 | Area/Elev./Rm. # 15/313'/605 | M.R./M.R. Item # M-113/04

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-188-7 & 8031-M-113-45-13BR | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	23" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/30/83

Prepared By B. R. Patel Date 7/30/83

Reviewed By D Reiss Date 11/28/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HD-76-193A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	31	Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration ~~will not effect~~ active functioning ~~of damper. Slight~~ leakage past damper, ~~if required to be~~ closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY [illegible] DATE 11/20/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. HD-76-193A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	24	Neoprene Sponge	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper, if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. HD-76-193A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	25	EPT	TEMPERATURE (°F)	(See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%).	N/A	27	
			AGING ANALYSIS	34 years @ 165°F	76	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE 20 years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule.

COMMENTS

Plant I.D.	HD-76-193B	Description	Elec.-Hydr. Op. Damper	Equip. Manuf.	American Warming & Ventilating, Inc.
System/CCP	Reactor Enclosure HVAC (Recirc. Mode Only)/065	Area/Elev./Rm. #	15/313'/605	M.R./M.R. Item #	M-113/04
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 9	Foreign Print #	8031-M-113-188-7 & 8031-M-113-45-13BR	P.O. #	M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	23" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 7/30/83

Prepared By: B. R. Patel Date: 7/30/83

Reviewed By: D. E. Letton Date: 11/28/83

Comments: * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HD-76-193B

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION Elec.-Hydr. Operated Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	31	Neoprene	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration will not effect active functioning of damper. Slight leakage past damper, if required to be closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. HD-76-193B

DESCRIPTION Elec.-Hydr. Operated Damper

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	24	Neoprene Sponge	TEMPERATURE (°F)	See Aging Analysis	-	Part deterioration ~~will not effect~~ active functioning ~~of damper. Slight~~ leakage past damper, ~~if required to be~~ closed, may occur.
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4×10^7	78	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	76 days @ 165°F	77	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45- 13 BR

RECOMMENDED REPLACEMENT SCHEDULE N/A

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Aging analysis material capability of 76 days will not meet the required 180 day operating time specified on Form #1.

PLANT I. D. HD-76-193B

DESCRIPTION Elec.-Hydr. Operated Damper

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seal	25	EPT	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	34 years @ 165°F	76	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY J Arman DATE 11/28/83

FOREIGN PRINT # 8031-M-113-188-7
8031-M-113-45-13 BR

RECOMMENDED REPLACEMENT SCHEDULE 20 years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule.

COMMENTS

Plant I.D.	HV-76-109	Description	E-H Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure HVAC (Recirc. Mode Only)/065	Area/Elev./Rm. #	15/283'/519	M.R./M.R. Item #	M-070/11
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 9	Foreign Print #	8031-M-70-7-6	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	2.5" w.g.	33	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.58×10^5 * 1.38×10^4 **	1 and 27	8.78×10^2	1	6.57×10^5 (Gamma) 1.38×10^4 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 7/30/83

Prepared By: B. R. Patel Date: 7/30/83

Reviewed By: D. Lawson Date: 11/28/83

Comments: * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HV-76-109

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION E-H Operated Butterfly Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PA Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-7-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on 50 Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. HV-76-110 Description E-H Op. Butterfly Valve Equip. Manuf. Allis/Chalmers

System/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065 Area/Elev./Rm. # 15/283'/519 M.R./M.R. Item # M-070/11

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-70-7-6 P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	2.5" w.g.	33	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.58 X 10^5 * 1.38 X 10^4 **	1 and 27	8.78 X 10^2	1	6.57 X 10^5 (Gamma) 1.38 X 10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/30/83

Prepared By B. R. Patel Date 7/30/83

Reviewed By D. Lewis Date 11/28/83

Comments * Accident and Normal Gamma

** Accident Beta

Form #1 EQRR # 8 Sheet 1 of ___

PLANT I. D. HV-76-110

DESCRIPTION E-H Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY AA Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-7-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. HV-76-119 | Description E-H Op. Butterfly Valve | Equip. Manuf. Allis/Chalmers

System/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065 | Area/Elev./Rm. # 11/313'/601 | M.R./M.R. Item # M-070-12

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-70-8-6 | P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	2.5" w.g.	33	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/30/83

Prepared By B. R. Patel | Date 7/30/83

Reviewed By D. Letton | Date 11/28/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HV-76-119

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION E-H Operated Butterfly Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY JAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-8-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-120	Description	E-H Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure HVAC (Recirc. Mode Only)/065	Area/Elev./Rm. #	11/313'/601	M.R./M.R. Item #	M-070/12
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 9	Foreign Print #	8031-M-70-8-6	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	2.5" w.g.	33	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 7/30/83

Prepared By: B. R. Patel Date: 7/30/83

Reviewed By: D. Seton Date: 11/28/83

Comments: * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HV-76-120

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION E-H Operated Butterfly Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-8-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. HV-76-184A | Description E-H Op. Butterfly Valve | Equip. Manuf. Allis/Chalmers

System/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065 | Area/Elev./Rm. # 15/313'/605 | M.R./M.R. Item # M-070/16

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-70-63-5 | P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	0.5" w.g.	33	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/30/83

Prepared By B. R. Patel | Date 7/30/83

Reviewed By D. Patel | Date 11/28/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HV-76-184A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION E-H Operated Btterfly Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PA Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-63-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. HV-76-184A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION E-H Operated Butterfly Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing		John Crane, 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY A.K. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-63-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-76-184A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION E-H Operated Butterfly Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Retainer Ring		ASTM-A575 & Nylon	TEMPERATURE (°F)	400	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.7×10^6	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	72	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY W. Curran DATE 11/28/83

FOREIGN PRINT # 8031-M-70-63-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability exceeds required conditions.

PLANT I. D. HV-76-184A

DESCRIPTION E-H Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-63-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV '6-184B	Description	E-H Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure HVAC (Recirc. Mode Only)/065	Area/Elev./Rm. #	15/313'/605	M.R./M.R. Item #	M-070/16
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 9	Foreign Print #	8031-M-70-63-5	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	1.5" w.g.	33	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* Accident and Normal Gamma
Revision #	0	Date	7/30/83		** Accident Beta
Prepared By	B. R. Patel	Date	7/30/83		
Reviewed By	D. Lepton	Date	11/28/83		

PLANT I. D. HV-76-184B

DESCRIPTION E-H Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79.	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PAKuwas DATE 11/28/83

FOREIGN PRINT # 8031-M-70-63-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. HV-76-184B

DESCRIPTION E-H Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing		John Crane, 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY [signature] DATE 11/28/83

FOREIGN PRINT # 8031-M-70-63-5

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-76-184B

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION E-H Operated Butterfly Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Retainer Ring		ASTM-A575 & Nylon	TEMPERATURE (°F)			
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.7×10^6	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	72	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY R A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-63-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capability exceeds required conditions.

PLANT I. D. HV-76-184B

DESCRIPTION E-H Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-63-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-191A	Description	E-H Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure HVAC (Recirc. Mode Only)/065	Area/Elev./Rm. #	15/313'/605	M.R./M.R. Item #	M-070/17
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 9	Foreign Print #	8031-M-70-14-9	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	13" w.g.	33	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 7/30/83

Prepared By: B. R. Patel Date: 7/30/83

Reviewed By: D. Lepta Date: 11/28/83

Comments: * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HV-76-191A

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION E-H Operated Butterfly Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-14-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. HV-76-191B | Description E-H Op. Butterfly Valve | Equip. Manuf. Allis/Chalmers

System/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065 | Area/Elev./Rm. # 15/313'/605 | M.R./M.R. Item # M-070/17

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-70-14-9 | P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	13" w.g.	33	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/30/83

Prepared By B. R. Patel Date 7/30/83

Reviewed By D. Lepta Date 11/28/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. HV-76-191B

SYSTEM/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065

DESCRIPTION E-H Operated Butterfly Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	-	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	(See Comments)	79	

REVISION # 0 DATE 10/21/83

PREPARED BY D. Sexton DATE 10/21/83

REVIEWED BY R Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-14-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. 1AV213 Description Fan Equip. Manuf. Joy Manufacturing Co.

System/CCP Reactor Enclosure HVAC (Recirc. Mode Only)/065 Area/Elev./Rm. # 15/313'/605 M.R./M.R. Item # M-069C/3A

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-69C-12-6 P.O. # M-069C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	32	104	1	120	1
Pressure (PSIG)	15.3" w.g.	32	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	32	180 days	2

Overall EQ Status Acceptable (No non-metallic parts)

Revision # 0 Date 7/30/83

Prepared By B. R. Patel Date 7/30/83

Reviewed By P. Jetan Date 11/28/83

Comments * Accident and Normal Gamma

** Accident Beta

Form #1 EQRR # 15 Sheet 1 of 1

Plant I.D.	1BV213	Description	Fan	Equip. Manuf.	Joy Manufacturing Co.
System/CCP	Reactor Enclosure HVAC (Recirc. Mode Only)/065	Area/Elev./Rm. #	15/313'/605	M.R./M.R. Item #	M-069C/3A
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 9	Foreign Print #	8031-M-69C-12-6	P.O. #	M-069C

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	32	104	1	120	1
Pressure (PSIG)	15.3" w.g.	32	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.72×10^4 * 1.38×10^6 **	1 and 27	8.78×10^2	1	6.63×10^4 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	32	180 days	2

Overall EQ Status: Acceptable (No non-metallic parts)

Revision #: 0 Date: 7/30/83

Prepared By: B. R. Patel Date: 7/30/83

Reviewed By: D. Lepan Date: 11/28/83

Comments: * Accident and Normal Gamma

** Accident Beta

Form #1 EQRR # 16 Sheet 1 of 1

Plant I.D. HV-61-102 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP Equipment & Floor Drains/073 Area/Elev./Rm. # 12/201'/207 M.R./M.R. Item # P-114A/9.13

Ref. Dwg. # P&ID M-61 Rev. 14 Foreign Print # 8031-P-114A-44-6 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	140	59	104	1	120	1
Pressure (PSIG)	150	59	1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 (Normal and Accident Gamma)	70 & 71	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By Atkinson Date 11/28/83

PLANT I. D. HV-61-102

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY G.A. Keiser DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-61-110 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Equipment & Floor Drains/073 Area/Elev./Rm. # 11/201'/209 M.R./M.R. Item # P-106/8.1

Ref. Dwg. # P&ID M-61 Rev. 14 Foreign Print # 8031-P-106C-3-12 P.O. # P-106

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	140	47	120	1	120	1
Pressure (PSIG)	150	47	1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 (Normal and Accident Gamma)	70 & 71	7.0×10^5 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	47	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By P.A. Kumar Date 11/28/83

PLANT I. D. HV-61-110

SYSTEM/CCP Equipment and Floor Drains/073

DESCRIPTION Air Operated Gate Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	4,7,9, 13,14, & 16	BUNA N	TEMPERATURE (°F)	--	--	Deterioration of part will cause loss of differential pressure across actuator cylinder. Valve will fail to safe direction so part not required.
			PRESSURE (PSIG)	--	--	
Ring, Wiper	17	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/23/83

PREPARED BY D. Sexton DATE 11/23/83

REVIEWED BY [signature] DATE 11/28/83

FOREIGN PRINT # 8031-P-106C-3-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Also used vendor print E-23599 for Kieley and Mueller type CSR cylinder actuator.

PLANT I. D. HV-61-110

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-106C-3-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-61-110

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/25/83

FOREIGN PRINT # 8031-P-106C-3-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-61-111 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Equipment & Floor Drains/073 Area/Elev./Rm. # 11/201'/209 M.R./M.R. Item # P-102/8.5

Ref. Dwg. # P&ID M-61 Rev. 14 Foreign Print # 8031-P-102A-176-5 P.O. # P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	140	43	120	1	120	1
Pressure (PSIG)	150	43	1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 (Normal and Accident Gamma)	70 & 71	7.0×10^5 (Gamma)	1	8.76×10^4 (Gamma) 5.31×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By [signature] Date 11/25/83

PLANT I. D. HV-61-111 DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073 REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/33

REVIEWED BY PH Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-176-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed process conditions.

PLANT I. D. HV-61-111

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY M A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-176-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-61-111

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16A	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/25/83

FOREIGN PRINT # 8031-P-102A-176-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-61-112	Description Motor Op. Globe Valve	Equip. Manuf. Rockwell
System/CCP Equipment & Floor Drains/073	Area/Elev./Rm. # 12/201'/207	M.R./M.R. Item # P-114A/9.13
Ref. Dwg. # P&ID M-61 Rev. 14	Foreign Print # 8031-P114A-44-6	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	140	59	104	1	120	1
Pressure (PSIG)	150	59	1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 (Normal and Accident Gamma)	70 & 71	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2)

Comments

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By RAKumar Date 11/28/83

PLANT I. D. HV-61-112

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Rings	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A.K. Kumar DATE 10/28/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. HV-61-130 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Equipment & Floor Drains/073 Area/Elev./Rm. # 11/201'/209 M.R./M.R. Item # P-106/8.1

Ref. Dwg. # P&ID M-61 Rev. 14 Foreign Print # 8031-P-106C-3-12 P.O. # P-106

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	140	47	120	1	120	1
Pressure (PSIG)	150	47	1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 (Normal and Accident Gamma)	70 & 71	7.0×10^5 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	47	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By A Kumar Date 11/28/83

PLANT I. D. HV-61-130

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	4,7,9, 13,14,& 16	BUNA N	TEMPERATURE (°F)	--	--	Deterioration of part will cause loss of differential pressure across actuator cylinder. Valve will fail to safe direction so part not required.
			PRESSURE (PSIG)	--	--	
Ring, Wiper	17	BUNA N	RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/23/83

PREPARED BY D. Sexton DATE 11/23/83

REVIEWED BY J.A. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-106C-3-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Also used vendor print E-23599 for Kieley & Mueller type CSR cylinder actuator.

PLANT I. D. HV-61-130

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-106C-3-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-61-130

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY P.K. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-106C-3-12

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-61-131 Description Air Op. Gate Valve Equip. Manuf. Velan

System/CCP Equipment & Floor Drains/073 Area/Elev./Rm. # 11/201'/209 M.R./M.R. Item # P-102/8.7

Ref. Dwg. # P&ID M-61 Rev. 14 Foreign Print # 8031-P-102C-32-16BR P.O. # P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	140	43	120	1	120	1
Pressure (PSIG)	150	43	1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 (Normal and Accident Gamma)	70 & 71	7.0×10^5 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By R A Kumar Date 11/28/83

PLANT I. D. HV-61-131

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	4,7,9 13,14, & 16	BUNA N	TEMPERATURE (°F)	--	--	Deterioration of part will cause loss of differential pressure across actuator cylinder. Valve will fail to safe direction so part not required.
Ri[illegible]iper	17	BUNA N	PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/27/83

PREPARED BY D. Sexton DATE 11/27/83

REVIEWED BY A Kuna DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-32-16BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (See Rationale)

COMMENTS Also used vendor print E-23599 for Kieley and Mueller type CSR cylinder actuator.

PLANT I. D. HV-61-131

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	10	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY J.A. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-32-16BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-61-131

DESCRIPTION Air Operated Gate Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Spiral Wound Gasket	12	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-P-102C-32-16BR

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. HV-61-132 Description Motor Op. Globe Valve Equip. Manuf. Rockwell

System/CCP Equipment & Floor Drains/073 Area/Elev./Rm. # 12/201'/207 M.R./M.R. Item # P-114A/9.13

Ref. Dwg. # P&ID M-61 Rev. 14 Foreign Print # 8031-P-114A-44-6 P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	140	59	104	1	120	1
Pressure (PSIG)	150	59	1/4" W.G.	1	Atmosphere	1
Radiation (Rads)	4.15×10^6 (Normal and Accident Gamma)	70 & 71	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By A Kumar Date 11/28/83

PLANT I. D. HV-61-132

DESCRIPTION Motor Operated Globe Valve

SYSTEM/CCP Equipment and Floor Drains/073

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Packing Rings	6	Asbestos (John Crane 187-IX)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PAKumar DATE 11/28/83

FOREIGN PRINT # 8031-P-114A-44-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Form #2 EQRR # 7 SHEET 2 OF 2

Plant I.D.	HV-87-122	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor Darling
System/CCP	Drywell Chilled Water /075	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	P-102/5.25
Ref. Dwg. #	P&ID M-87 Sh.2	Foreign Print #	8031-P-102A-131-3	P.O. #	P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	104	1	120	1
Pressure (PSIG)	100	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 *	1	9.98×10^4 * 5.91×10^2 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status	Acceptable	(See Form #2)		Comments	* (Gamma)
Revision #	0	Date	7/27/83		** (Beta)
Prepared By	B. R. Patel	Date	7/27/83		
Reviewed By	P A Kumar	Date	11/30/83		

PLANT I. D. HV-87-122

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-87-122

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16A	Asbestos (John Crane) 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-87-122 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Drywell Chilled Water /075 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16	Asbestos (John Crane) 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-87-123	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor Darling
System/CCP	Drywell Chilled Water /075	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	P-102/5.25
Ref. Dwg. #	P&ID M-87 Sh.2	Foreign Print #	8031-P-102A-131-3	P.O. #	P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	104	1	120	1
Pressure (PSIG)	100	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 *	1	9.98×10^4 * 5.91×10^2 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 7/27/83

Prepared By: B. R. Patel Date: 7/27/83

Reviewed By: AKumar Date: 11/30/83

Comments: * (Gamma)

** (Beta)

PLANT I. D. HV-87-123 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Drywell Chilled Water /075 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY [illegible] DATE 11/30/83

FOREIGN PRINT # 8031-P-1027.131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-87-123

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16A	Asbestos (John Crane) 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-87-123 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Drywell Chilled Water /075 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16	Asbestos (John Crane) 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-87-128	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor Darling
System/CCP	Drywell Chilled Water /075	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	P-102/5.25
Ref. Dwg. #	P&ID M-87 Sh.2	Foreign Print #	8031-P-102A-131-3	P.O. #	P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	104	1	120	1
Pressure (PSIG)	100	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 *	1	9.98×10^4 * 5.91×10^2 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments: * (Gamma)

** (Beta)

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By P A Kumar Date 11/30/83

PLANT I. D. HV-87-128 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Drywell Chilled Water /075 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-87-128 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Drywell Chilled Water /075 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16A	Asbestos (John Crane) 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-87-128

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16	Asbestos (John Crane) 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PAKuman DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-87-129	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor Darling
System/CCP	Drywell Chilled Water /075	Area/Elev./Rm. #	15/253'/402	M.R./M.R. Item #	P-102/5.25
Ref. Dwg. #	P&ID M-87 Sh.2	Foreign Print #	8031-P-102A-131-3	P.O. #	P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	104	1	120	1
Pressure (PSIG)	100	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	N/A	N/A	3.51×10^4 *	1	9.98×10^4 * 5.91×10^2 **	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	43	1 Hour	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 7/27/83

Prepared By: B. R. Patel Date: 7/27/83

Reviewed By: A Kumar Date: 11/30/83

Comments: * (Gamma)

** (Beta)

PLANT I. D. HV-87-129

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	18	S.S. & Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-87-129

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Motor Operated Gate Valve

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	16A	Asbestos (John Crane) 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-87-129 DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Drywell Chilled Water /075 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	16	Asbestos (John Crane) 187-I	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-P-102A-131-3

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D. XV-87-156A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Drywell Chilled Water /075 | Area/Elev./Rm. # 11/217'/ (See Comments) | M.R./M.R. Item # M-231/36.1

Ref. Dwg. # P&ID M-87 Sh.2 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	120	1	120	1
Pressure (PSIG)	140 (Normal & Accident Gamma)	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By P.K. Kumar Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-87-156A

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-87-156A

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 Years @ 120°F	76	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 Years Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-87-156A

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 Years @ 120°F	76	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 Years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-87-156A

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY P A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-87-156B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Drywell Chilled Water /075 | Area/Elev./Rm. # 16/217'/(See Comments) | M.R./M.R. Item # M-231/36.1

Ref. Dwg. # P&ID M-87 Sh.2 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	120	1	120	1
Pressure (PSIG)	140	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.03×10^7 (Normal & Accident Gamma)	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By PAKumar Date 11/30/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-87-156B

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY [illegible] DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-87-156B

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 Years @ 120°F	76	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 Years Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-87-156B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Drywell Chilled Water /075

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 Years @ 120°F	76	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY P.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 Years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-87-156B
Drywell
SYSTEM/CCP Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PAkumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-87-157A | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Drywell Chilled Water /075 | Area/Elev./Rm. # 11/217'/(See Comments) | M.R./M.R. Item # M-231/37.1

Ref. Dwg. # P&ID M-87 Sh.2 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	120	1	120	1
Pressure (PSIG)	140	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	(Normal & Accident Gamma) 1.03×10^7	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By P.K. Kumar Date 11/30/83

Comments Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-87-157A

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PM Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-87-157A

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 Years @ 120°F	76	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 Years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-87-157A

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 Years @ 120°F	76	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 Years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-87-157A

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	$5400^{\circ}F$	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^{9}	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY R Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. XV-87-157B | Description Flow Limiting Valve | Equip. Manuf. Marotta

System/CCP Drywell Chilled Water /075 | Area/Elev./Rm. # 16/217'/(See Comments) | M.R./M.R. Item # M-231/37.1

Ref. Dwg. # P&ID M-87 Sh.2 | Foreign Print # 8031-M-231-1-10 | P.O. # M-231

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	95	3	120	1	120	1
Pressure (PSIG)	140	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	(Normal & Accident Gamma) 1.03×10^7	70 & 71	1×10^7 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	2	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By PAKumar Date 11/30/83

Comments: Room number not identified for Flow Limiting Valve. For EQ worst case ambient conditions are specified. Actual values will not exceed those above. (Ref. 82)

PLANT I. D. XV-87-157B

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	21	Silicone Rubber	TEMPERATURE (°F)	--	--	This part is the gasket between the proximity (position) switch and the valve body and serves no safety mechanical function.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

PLANT I. D. XV-87-157B

DESCRIPTION Flow Limiting Valve

SYSTEM/CCP Drywell Chilled Water /075

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	62	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 Years @ 120°F	76	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 Years (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-87-157B

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring	63	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	200 Years @ 120°F	76	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY P A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE 20 Years Evaluation (Based on EQ)

NON-METALLIC PART EQ STATUS Acceptable (Based on replacement schedule).

COMMENTS Replacement schedule based on radiation material capability.

PLANT I. D. XV-87-157B

SYSTEM/CCP Drywell Chilled Water /075

DESCRIPTION Flow Limiting Valve

REQUIRED CONDITIONS 1

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring	91	Grafoil	TEMPERATURE (°F)	5400°F	63	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1.5×10^9	65	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-231-1-10

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

Plant I.D. BPD-201-21A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/210'/203 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-124-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	115	1	275	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.5	1
Radiation (Rads)	6.27×10^5 * 5.91×10^2 **	1 and 27	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Orhai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-201-21A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Legan DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-21A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Doran DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-21A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-201-21B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/210'/203 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 3031-M-113-124-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	115	1	275	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.5	1
Radiation (Rads)	6.27×10^5 * 5.91×10^2 **	1 and 27	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. P. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-201-21B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lemon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-21B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201- 21B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Shen DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-201-22A Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/211'/203 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-124-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	115	1	275	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.5	1
Radiation (Rads)	6.27×10^5 * 5.91×10^2 **	1 and 27	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-201-22A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lau DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-22A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201- 22A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-201-22B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/211'/203 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-124-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	115	1	275	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.5	1
Radiation (Rads)	6.27×10^5 * 5.91×10^2 **	1 and 27	5.09×10^5 (Gamma)	1	1.18×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By D. Lopa Date 11/28/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-201-22B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-22B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Khan DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-22B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Bra DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-201-23A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/212'/200 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-124-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Ochai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-201-23A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-23A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF FART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Sean DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-23A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lapa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-201-23B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/212'/200 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-124-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pathuri Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-201-23B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-23B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Dorn DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-23B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-201-68A — Description Steam Flooding Damper — Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. # 15/206'/200 — M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 — Foreign Print # Vendor Print 13502-36 — P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 — Date 7/28/83

Prepared By B. R. Patel — Date 7/28/83

Reviewed By V. Achai — Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-201-68A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-68A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P. Lepo DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. 3PD-76-201-68A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, RCIC, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lyon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-201-68B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/206'/200 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # Vendor Print 13502-36 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pachai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-201-68B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-201-68B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. [illegible] DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD -76- 201-68B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-104A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/206'/200 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # Vendor Print 13502-36 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Pichai | Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-104A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lapa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-104A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lom DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD -76-202-104A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lapa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-104B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/206'/200 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # Vendor Print 13502-36 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Pichumani | Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-104B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lea DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-104B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD -76-202-104B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/C79

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lim DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-118A Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/217'/304 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # Vendor Print 13502-36 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.01×10^5 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-118A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-118A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lenn DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-118A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Stephens DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-118B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/217'/304 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # Vendor Print 13502-36 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.01×10^5 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By M Patel Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-118B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY W. Lapay DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-118B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-118B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P. Lem DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-33A Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/297'/507 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-257-2 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	35	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pochai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-33A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lyon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-33A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P. Shen DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-33A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lesp DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-33B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/295'/507 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-257-2 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-33B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepo DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-33B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lewis DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-33B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Sellers DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-40A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/297'/508 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-257-2 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Richen Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-40A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Jeyan DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-40A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lom DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-40A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lesser DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-40B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/295'/508 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-257-2 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Archari Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-40B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-40B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leton DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-40B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepp DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-41A — Description Steam Flooding Damper — Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. # 11/297'/509 — M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 — Foreign Print # 8031-M-113-257-2 — P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 — Date 7/28/83

Prepared By B. R. Patel — Date 7/28/83

Reviewed By V. Pitchai — Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-41A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-41A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lehr DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-41A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Sekon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-41B — Description Steam Flooding Damper — Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. # 11/295'/509 — M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 — Foreign Print # Vendor Print 13502-36 — P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 — Date 7/28/83

Prepared By B. R. Patel — Date 7/28/83

Reviewed By V. Achai — Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-41B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lexton DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-41B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepm DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-41B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Sexton DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-67A Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/206'/200 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # Vendor Print 13502-36 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Rchai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-67A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Bm DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-67A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lefton DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-67A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-202-67B RHR, HPCI, RCIC & CS — Description Steam Flooding Damper — Equip. Manuf. American Warming Ventilating Inc.

System/CCP ROOMS HVAC/079 — Area/Elev./Rm. # 15/206'/200 — M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 — Foreign Print # Vendor Print 13502-36 — P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 — Date 7/28/83

Prepared By B. R. Patel — Date 7/28/83

Reviewed By V. Pichai — Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-202-67B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-67B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, dPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-202-67B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-10A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/297'/509 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126-9 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall Eq Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. P. Patel | Date 7/28/83

Reviewed By V. Prchai | Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-10A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY J. Lopa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-10A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-10A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-108 Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 11/295'/509 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-126-9 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Orchai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-10B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepo DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-10B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-10B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	---	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY Dr Soto DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-14A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 12/243'/307 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-124-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	264	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.4	1
Radiation (Rads)	9.57×10^5 * 5.91×10^2 **	1 and 27	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-14A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BrD-76-203-14A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/07

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY J. Lepan DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-14A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-14B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 12/243'/307 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-124-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	264	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.4	1
Radiation (Rads)	9.57×10^5 * 5.91×10^2 **	1 and 27	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Pichai | Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-14B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lefton DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-14B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepp DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-14B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Bates DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-16A — Description: Steam Flooding Damper — Equip. Manuf.: American Warming Ventilating Inc.

System/CCP: RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. #: 12/264'/407 — M.R./M.R. Item #: M-113/14

Ref. Dwg. #: P&ID M-76 Sh. 3 Rev. 9 — Foreign Print #: 8031-M-113-127-4 & 8031-M-113-175-1 — P.O. #: M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	311	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	9.9	1
Radiation (Rads)	1.46×10^6 * 5.91×10^2 **	1 and 27	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status: Acceptable (See Form #2)

Revision #: 1 — Date: 12/8/83

Prepared By: D. Sexton — Date: 12/8/83

Reviewed By: V. Pichai — Date: 12/9/83

Comments: HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-16A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY P.K. Kuan DATE 12/9/83

FOREIGN PRINT # 80-1-M-113-172-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions,

PLANT I. D. BPD-76-203-16A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY Pitkway DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. BPD-76-203-16A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY M. Cuman DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation, based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-16B — Description: Steam Flooding Damper — Equip. Manuf.: American Warming Ventilating Inc.

System/CCP: RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. #: 12/264'/407 — M.R./M.R. Item #: M-113/14

Ref. Dwg. #: P&ID M-76 Sh. 3 Rev. 9 — Foreign Print #: 8031-M-113-127-4 & 8031-M-113-175-1 — P.O. #: M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	311	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	9.9	1
Radiation (Rads)	1.46×10^6 * 5.91×10^2 **	1 and 27	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status: Acceptable (See Form #2)

Revision #: 1 — Date: 12/8/83

Prepared By: D. Sexton — Date: 12/8/83

Reviewed By: V. Oichini — Date: 12/9/83

Comments: HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-16B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY RAKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-16B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY A Kumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-16B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Picking Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY RAKewan DATE 12/9/83

FOREIGN PRINT # 803i-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation, based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-17A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 12/290'/518 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126-9 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	311	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	9.9	1
Radiation (Rads)	1.46×10^6 * 5.91×10^2 **	1 and 27	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/29/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pirhai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-17A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-17A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY T. Letta DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-17A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-17B | Description: Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 12/288'/518 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126-9 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	311	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	9.9	1
Radiation (Rads)	1.46×10^6 * 5.91×10^2 **	1 and 27	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status: Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Pichai | Date 11/30/83

Comments: HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-17B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/07

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-17B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lem DATE 4/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-17B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (C-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leto DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-1A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/249'/306 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-124-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	264	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.4	1
Radiation (Rads)	9.57×10^5 * 5.91×10^2 **	1 and 27	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-1A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leiss DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-1A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-1A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-1B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/249'/306 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-124-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	264	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.4	1
Radiation (Rads)	9.57×10^5 * 5.91×10^2 **	1 and 27	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pothai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-1B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY J. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-1B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lomas DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-1B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-20A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/229'/305 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-129-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	264	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.4	1
Radiation (Rads)	9.57×10^5 * 5.91×10^2 **	1 and 27	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pitchai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-20A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-20A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Compression Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Brown DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-20A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. [illegible] DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-20B — Description: Steam Flooding Damper — Equip. Manuf.: American Warming Ventilating Inc.

System/CCP: RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. #: 11/227'/306 — M.R./M.R. Item #: M-113/14

Ref. Dwg. #: P&ID M-76 Sh. 3 Rev. 9 — Foreign Print #: 8031-M-113-129-5 — P.O. #: M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	264	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.4	1
Radiation (Rads)	9.57×10^5 * 5.91×10^2 **	1 and 27	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status: Acceptable (See Form #2)

Comments: MCLB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

Revision #: 0 — Date: 7/28/83

Prepared by: B. R. Patel — Date: 7/28/83

Reviewed By: V. Pitchai — Date: 11/30/83

PLANT I. D. BPD-76-203-20B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Sohn DATE 11/28/83

FOREIGN PRINT # 8031-M-113-170-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-20P

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Rao DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. EPD-76-203- 20B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	–	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lepa DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-22A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/290'/507 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126-9 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Orchai | Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-22A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITION 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Dalton DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-22A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lem DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-22A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. [illegible] DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-22B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/290'/507 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-126-9 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-22B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-22B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-22B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P. Lyon DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-23A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/293'/507 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126-9 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pitlai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-23A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Leeson DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-23A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lam DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-23A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY D. Lee DATE 11/28/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-23B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/293'/507 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-126-9 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2) Comments HELB Ambient Accident Conditions

Revision # 0 Date 7/28/83 * Accident and Normal Gamma

Prepared By B. R. Patel Date 7/28/83 ** Accident Beta

Reviewed By V. Orchai Date 11/30/83

PLANT I. D. BPD-76-203-23B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-23B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-23B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-24A Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/243'/304 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-129-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.01×10^5 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2) Comments HELB Ambient Accident Conditions

Revision # 0 Date 7/28/83 * Accident and Normal Gamma

Prepared By B. R. Patel Date 7/28/83 ** Accident Beta

Reviewed By PAKumar Date 11/30/83

PLANT I. D. BPD-76-203-24A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-24A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203- 24A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Cuman DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-24B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/243'/304 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-129-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.01×10^5 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pachai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-24B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-24B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY M.H. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-24B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-25A Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/296'/504 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-126-9 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	4.82×10^5 * 5.91×10^2 **	1 and 27	4.82×10^5 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

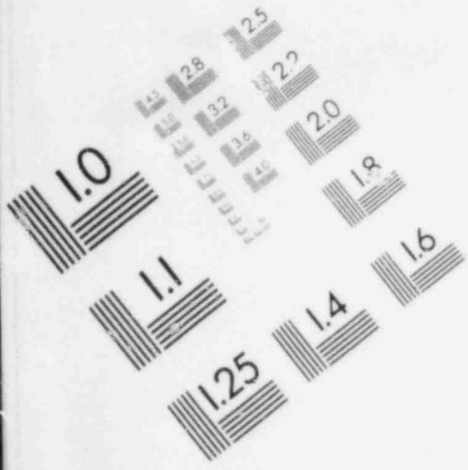
Reviewed By V. Orchai Date 11/30/83

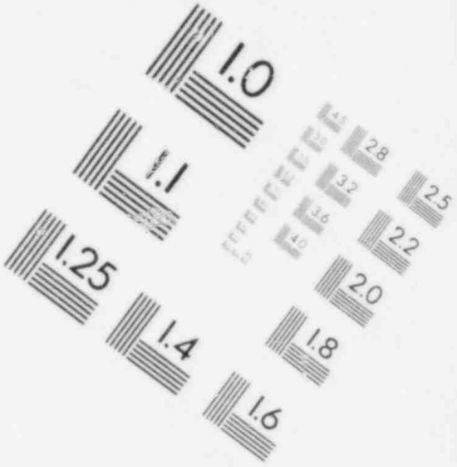
Comments HELB Ambient Accident Conditions

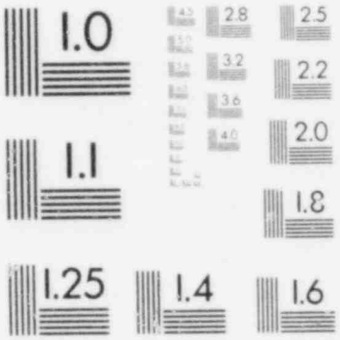
* Accident and Normal Gamma

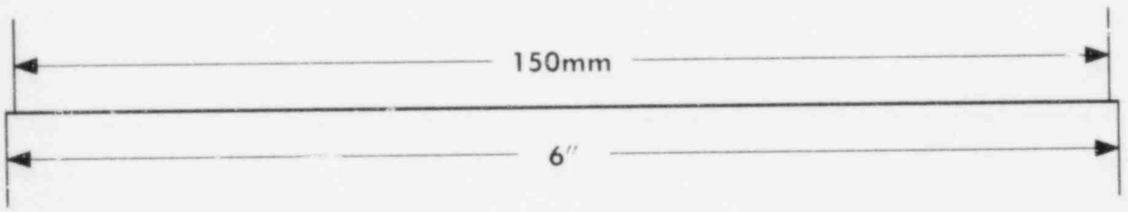
** Accident Beta

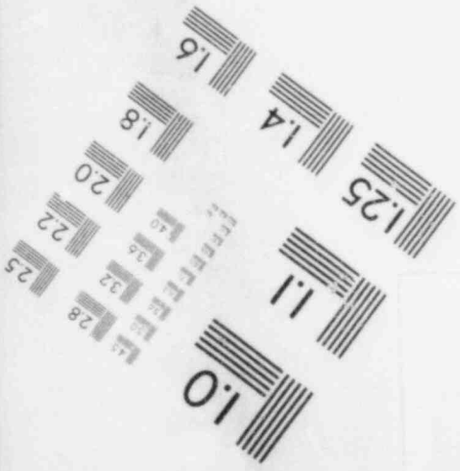
IMAGE EVALUATION
TEST TARGET (MT-3)

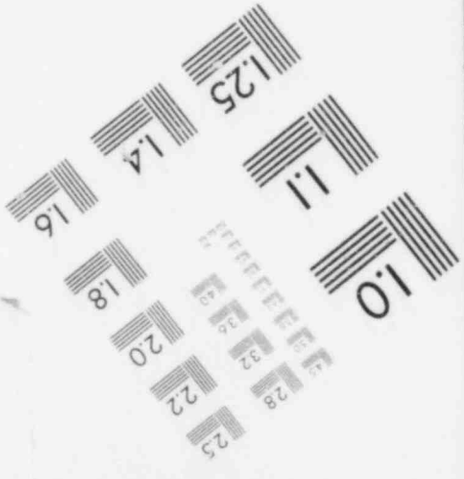












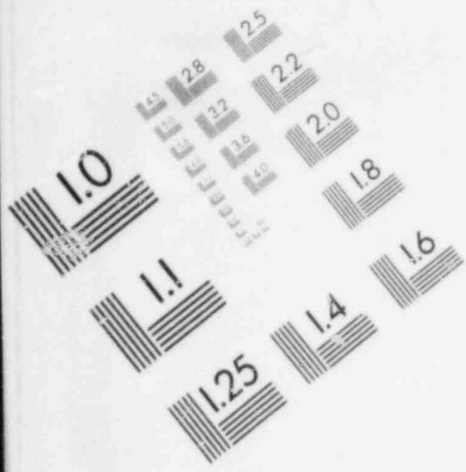
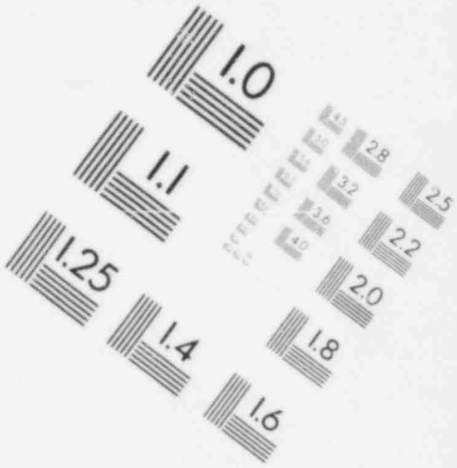
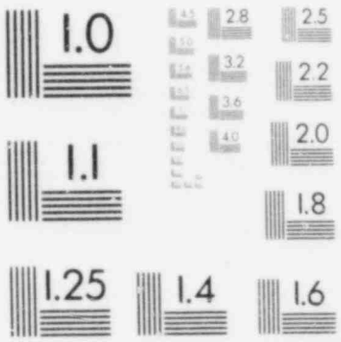
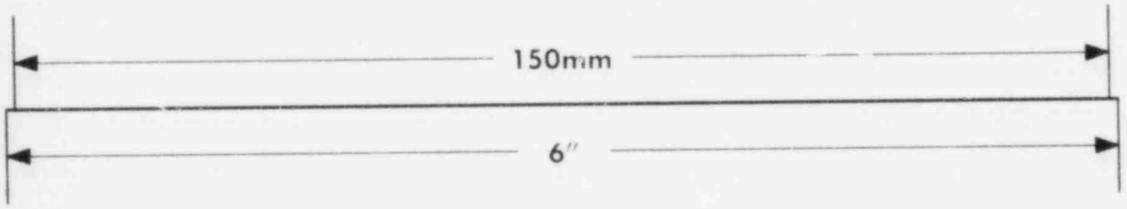
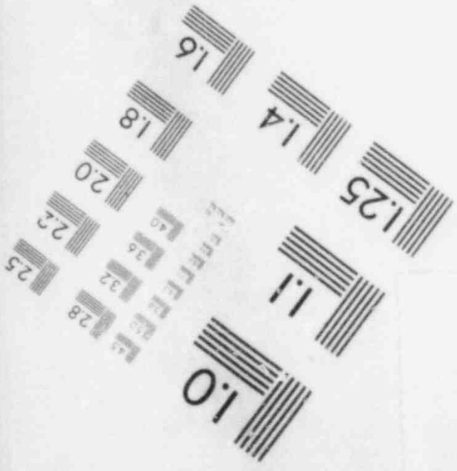


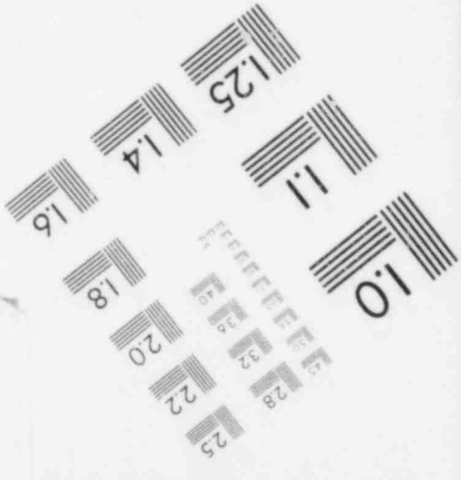
IMAGE EVALUATION TEST TARGET (MT-3)











PLANT I. D. BPD-76-203-25A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY R.A. Kinney DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-25A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Form #2 EQRR # 39 SHEET 3 OF 4

PLANT I. D. BPD-76-203-25A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Form #2 EQRR # 39 SHEET 4 OF 4

Plant I.D. BPD-203-25B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/296'/504 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126-9 | P.G. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	4.82×10^5 * 5.91×10^2 **	1 and 27	4.82×10^5 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pochai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-25B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NO REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.H.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-25B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-25B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-26A — Description: Steam Flooding Damper — Equip. Manuf.: American Warming Ventilating Inc.

System/CCP: RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. #: 15/269'/503 — M.R./M.R. Item #: M-113/14

Ref. Dwg. #: P&ID M-76 Sh. 3 Rev. 9 — Foreign Print #: 8031-M-113-126(2)-5 — P.O. #: M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	214	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.6	1
Radiation (Rads)	1.18×10^6 * 5.91×10^2 **	1 and 27	1.18×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 — Date: 7/28/83

Prepared By: B. R. Patel — Date: 7/28/83

Reviewed By: V. Archai — Date: 11/30/83

Comments: HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-26A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-26A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203- 26A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-26B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/296'/503 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126(2)-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	214	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.6	1
Radiation (Rads)	1.18×10^6 * 5.91×10^2 **	1 and 27	1.18×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pachai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-26B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-26B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-26B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-27A (RHR, HPCI, RCIC & CS) Description Steam ...ing Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP ROOMS HVAC/079 Area/Elev./Rm. # 11/293'/509 M.R./M.R. Item # M-113/14

Ref. Dwg. # P... M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-126(2)-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Orchai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-27A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-27A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-27A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-27B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 11/293'/509 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-126(2)-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	35

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Orchan Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-27B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-27B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-27B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-28A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/293'/508 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126(2)-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/33

Reviewed By V. Orthai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-28A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-28A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.H.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-28A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-28B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 11/293'/508 M.K./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-126(2)-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Orchai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-28B

DESCRIPTION Steam Flooding Damper

SYSTEM/COP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-28B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203- 28B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-29A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/293'/503 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126(2)-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	214	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.6	1
Radiation (Rads)	1.18×10^6 * 5.91×10^2 **	1 and 27	1.18×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-29A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PA/Cuman DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-29A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKewar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabiiities exceed required conditions.

PLANT I. D. BPD-76-203-29A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-29B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/297'/503 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126(2)-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	214	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.6	1
Radiation (Rads)	1.18×10^6 * 5.91×10^2 **	1 and 27	1.18×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Ordwai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-29B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-29B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-29B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAkumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-30A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/293'/504 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126(2)-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	4.82×10^5 * 5.91×10^2 **	1 and 27	4.82×10^5 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pathan Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-30A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-30A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-30A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-30B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/297'/504 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126(2)-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	4.82×10^5 * 5.91×10^2 **	1 and 27	4.82×10^5 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Orchard | Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-30B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-30B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION.
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203- 30B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-31A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/293'/505 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126(2)-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	4.82×10^5 * 5.91×10^2 **	1 and 27	4.82×10^5 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. P. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-31A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-31A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, &

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-31A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-31B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/297'/505 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-126(2)-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	4.82×10^5 * 5.91×10^2 **	1 and 27	4.82×10^5 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Archai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-31B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-31B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.K. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203- 31B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-37A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 16/244'/309 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-129-5 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	264	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.4	1
Radiation (Rads)	9.57×10^5 * 5.91×10^2 **	1 and 27	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pathvai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-37A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	2	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-37A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-37A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-37B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 16/244'/309 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-129-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	264	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.4	1
Radiation (Rads)	9.57×10^5 * 5.91×10^2 **	1 and 27	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pathai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-37B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-37B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY DAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-37B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A. Cuvas DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-38A — Description: Steam Flooding Damper — Equip. Manuf.: American Warming Ventilating Inc.

System/CCP: RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. #: 16/224'/304 — M.R./M.R. Item #: M-113/14

Ref. Dwg. #: P&ID M-76 Sh. 3 Rev. 9 — Foreign Print #: 8031-M-113-130-4 & 8031-M-113-175-1 — P.O. #: M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.01×10^5 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status: Acceptable (See Form #2)

Revision #: 1 — Date: 12/8/83

Prepared By: D. Sexton — Date: 12/8/83

Reviewed By: V. Orchard — Date: 12/9/83

Comments: HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

Form #1 EQRR # 55 Sheet 1 of 4

PLANT I. D. BPD-76-203-38A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	---	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY A Kumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilitaies exceed required conditions.

PLANT I. D. BPD-76-203-38A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY PAKeenan DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-38A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY PAKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation, based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-38B — Description: Steam Flooding Damper — Equip. Manuf.: American Warming Ventilating Inc.

System/CCP: RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. #: 16/227'/304 — M.R./M.R. Item #: M-113/14

Ref. Dwg. #: P&ID M-76 Sh. 3 Rev. 9 — Foreign Print #: 8031-M-113-130-4 & 8031-M-113-175-1 — P.O. #: M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.01×10^5 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status: Acceptable (See Form #2)

Revision #: 1 — Date: 12/8/83

Prepared By: D. Sexton — Date: 12/8/83

Reviewed By: R.A. Kumar — Date: 12/9/83

Comments: HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-38B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments		

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY AKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-38B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY PAKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Form #2 EQRR # 56 SHEET 3 OF 4

PLANT I. D. BPD-76-203-38B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	---	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY PAKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation, based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-39A Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 16/245'/304 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 3031-M-113-129-5 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.01×10^5 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Archai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-39A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1. 2. & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-39A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203- 39A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Form #2 EQRR # 57 SHEET 4 OF 4

Plant I.D. BPD-203-39B — Description Steam Flooding Damper — Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. # 16/245'/307 — M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 — Foreign Print # 8031-M-113-129-5 — P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	264	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	1.4	1
Radiation (Rads)	9.57×10^5 * 5.91×10^2 **	1 and 27	8.46×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 — Date 7/28/83

Prepared By B. R. Patel — Date 7/28/83

Reviewed By V. Orchai — Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-39B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-39B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY RAkumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-39B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.N. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. 3PD-203-3A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/292'/506A | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126(3)-4 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Orchai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-3A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-3A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-3A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY [signature] DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-3B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/294'/506A | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Prir. # 8031-M-113-126(3)-4 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	120	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pirhai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-3B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-3B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-3B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-42A — Description: Steam Flooding Damper — Equip. Manuf.: American Warming Ventilating Inc.

System/CCP: RHR, HPCI, RCIC & CS ROOMS HVAC/079 — Area/Elev./Rm. #: 15/296'/505 — M.R./M.R. Item #: M-113/14

Ref. Dwg. #: P&ID M-76 Sh. 3 Rev. 9 — Foreign Print #: Vendor Print 13502-36 — P.O. #: M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	4.82×10^5 * 5.91×10^2 **	1 and 27	4.82×10^5 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 — Date: 7/28/83

Prepared By: B. R. Patel — Date: 7/28/83

Reviewed By: V. Parthasarathi — Date: 11/30/83

Comments: HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-42A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY AKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-42A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-42A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-42B Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/296'/505 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # Vendor Print 13502-36 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	110	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	4.82×10^5 * 5.91×10^2 **	1 and 27	4.82×10^5 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Dichai Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-42B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	--	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-42B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-42B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-43A RHR, HPCI, RCIC & CS | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP ROOMS HVAC/079 | Area/Elev./Rm. # 15/303'/522 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # Vendor Print 13502-36 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	115	1	210	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.34×10^6 * 5.91×10^2 **	1 and 27	1.24×10^6 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Oschai | Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-43A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-43A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD -76-203-43A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-43B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/303'/522 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # Vendor Print 13502-36 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	115	1	210	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.34×10^6 * 5.91×10^2 **	1 and 27	1.24×10^6 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Purohit | Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-43B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-43B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY R.A. Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-43B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY BKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-44A Description Steam Flooding Damper Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 Area/Elev./Rm. # 15/306'/522 M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 Foreign Print # 8031-M-113-176-1 P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	115	1	210	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.34×10^6 * 5.91×10^2 **	1 and 27	1.24×10^6 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By V. Pirhai Date 12/9/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-44A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY AKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-44A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY AKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions

PLANT I. D. BPD-76-203-44A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY PAKumar DATE 12/9/83

FOREIGN PRINT # 3031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-44B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 15/306'/522 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-176-1 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	115	1	210	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.34×10^6 * 5.91×10^2 **	1 and 27	1.24×10^6 (Gamma)	1	9.98×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/8/83

Prepared By D. Sexton | Date 12/8/83

Reviewed By V. Pathak | Date 12/9/83

Comments MELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-44B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2. & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY PAKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-44B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY [signature] DATE 12/9/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-44B

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

DESCRIPTION Steam Flooding Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY P.K.Kumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-4A	Description Steam Flooding Damper	Equip. Manuf. American Warming Ventilating Inc.
System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079	Area/Elev./Rm. # 11/264'/407	M.R./M.R. Item # M-113/14
Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9	Foreign Print # 8031-M-113-127-4 & 8031-M-113-175-1	P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	311	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	9.9	1
Radiation (Rads)	1.46×10^6 * 5.91×10^2 **	1 and 27	1.35×10^6 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By V. Ortwa Date 12/9/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-4A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY AKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-16-203-4A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY PAKiman DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-4A

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

DESCRIPTION Steam Flooding Damper

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY P.A. Cameron DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation, based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-4B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/264'/407 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-127-4 & 8031-M-113-175-1 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	120	1	311	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	9.9	1
Radiation (Rads)	1.46×10^6 * 5.91×10^2 **	1 and 27	1.35×10^5 (Gamma)	1	1.11×10^5 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By V. Pitchai Date 12/9/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-4B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY PAKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-4B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)			
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 12/8/83

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY P.K. Kuman DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-4B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	---	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 12/8/33

PREPARED BY D. Sexton DATE 12/8/83

REVIEWED BY PAKumar DATE 12/9/83

FOREIGN PRINT # 8031-M-113-175-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation, based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. BPD-203-9A | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/297'/508 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126-9 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pathak Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-9A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY P.N.Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-9A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-9A

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PAKewar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Form #2 EQRR # 69 SHEET 4 OF 4

Plant I.D. BPD-203-9B | Description Steam Flooding Damper | Equip. Manuf. American Warming Ventilating Inc.

System/CCP RHR, HPCI, RCIC & CS ROOMS HVAC/079 | Area/Elev./Rm. # 11/295'/508 | M.R./M.R. Item # M-113/14

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 9 | Foreign Print # 8031-M-113-126-9 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	36	104	1	217	1
Pressure (PSIG)	-2" w.g.	36	-1/4" w.g.	1	2.7	1
Radiation (Rads)	1.16×10^6 * 5.91×10^2 **	1 and 27	1.16×10^6 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	100	36	90	1	100	1
Submergence					No	13
Required Operating Time			40 years	36	1 hour	36

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Pechan | Date 11/30/83

Comments HELB Ambient Accident Conditions

* Accident and Normal Gamma

** Accident Beta

PLANT I. D. BPD-76-203-9B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Blade Seal	29	Methyl Vinyl Silicone Sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-9B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Companion Flange Gasket	65	Methyl Vinyl Silicone sponge	TEMPERATURE (°F)	500	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	—	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY PA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. BPD-76-203-9B

DESCRIPTION Steam Flooding Damper

SYSTEM/CCP RHR, HPCI, RCIC & CS Rooms HVAC/079

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing Ring (O-Ring)	8	Ethylene Propylene	TEMPERATURE (°F)	See comments	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 11/27/83

PREPARED BY V. Pichai DATE 11/27/83

REVIEWED BY A Cumar DATE 11/30/83

FOREIGN PRINT # 8031-M-113-176-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation based on aging analysis, far exceeds plant life plus end of life accident requirements.

Plant I.D. 1AV208 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP RHR, HPCI, RCIC AND CS ROOM HVAC/079 Area/Elev./Rm. # 15/177'/108 M.R./M.R. Item # M-123/04

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.74×10^5 * 1.77×10^4 **	1 and 27	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	6 hours	26

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1AV208 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY C. Sexton DATE 11/18/83

REVIEWED BY V. Archai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1AV209 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP RHR, HPCI, RCIC AND CS ROOM HVAC/079 Area/Elev./Rm. # 15/177'/109 M.R./M.R. Item # M-123/05

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.25×10^6 * 1.77×10^4 **	1 and 27	8.46×10^5 (Gamma)	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	6 hours	26

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Achari Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1AV209 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Achari DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1AV210 RHR, HPCI, RCIC AND CS ROOM HVAC/079 | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP | Area/Elev./Rm. # 15/177'/102 | M.R./M.R. Item # M-123/06

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	5.29×10^6 * 1.38×10^6 **	1 and 27	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Orchai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1AV210 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archuai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1AV211 RHR, HPCI, RCIC AND CS | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP ROOM HVAC/079 | Area/Elev./Rm. # 11/177'/110 | M.R./M.R. Item # M-123/07

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.95×10^6 * 1.38×10^6 **	1 and 27	3.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pachai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1AV211 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1BV208 RHR, HPCI, RCIC AND CS | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP ROOM HVAC/079 | Area/Elev./Rm. # 15/177'/108 | M.R./M.R. Item # M-123/04

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.74×10^5 * 1.77×10^4 **	1 and 27	4.84×10^5 (Gamma)	1	1.90×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	6 hours	26

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pitchai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1BV208 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1BV209 | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP RHR, HPCI, RCIC AND CS ROOM HVAC/079 | Area/Elev./Rm. # 15/177'/109 | M.R./M.R. Item # M-123/05

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.25×10^6 * 1.77×10^4 **	1 and 27	8.46×10^5 (Gamma)	1	4.01×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	6 hours	26

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/23/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Orchai | Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1BV209 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1BV210 RHR, HPCI, RCIC AND CS ROOM HVAC/079 | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # M-123/06

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	5.29×10^6 * 1.38×10^6 **	1 and 27	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Archai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1BV210 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pochan DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1BV211 — Description Fan — Equip. Manuf. American Air Filter Co.

System/CCP RHR, HPCI, RCIC AND CS ROOM HVAC/079 — Area/Elev./Rm. # 12/177'/117 — M.R./M.R. Item # M-123/07

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 — Foreign Print # 8031-M-123-264-2 — P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.95×10^6 * 1.38×10^6 **	1 and 27	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Comments * Accident and Normal Gamma

** Accident Beta

Revision # 0 — Date 7/28/83

Prepared By R. R. Patel — Date 7/28/83

Reviewed By V. Orthai — Date 11/30/83

PLANT I. D. 1BV211 DESCRIPTION Fan

SYSTEM/CCP ~~RHR, HPCI, RCIC, AND CS ROOMS HVAC~~/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing sk[illegible]s. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orhai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1CV21C — Description Fan — Equip. Manuf. American Air Filter Co.

System/CCP RHR, HPCI, RCIC AND CS ROOM HVAC/079 — Area/Elev./Rm. # 15/177'/102 — M.R./M.R. Item # M-123/06

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 — Foreign Print # 8031-M-123-264-2 — P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	5.29×10^6 * 1.38×10^6 **	1 and 27	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 — Date 7/28/83

Prepared By B. R. Patel — Date 7/28/83

Reviewed By V. Pachai — Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

Form #1 EQRR # 79 Sheet 1 of 2

PLANT I. D. 1CV210 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1CV211 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP RHR, HPCI, RCIC AND CS ROOM HVAC/079 Area/Elev./Rm. # 11/177'/113 M.R./M.R. Item # M-123/07

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.95×10^6 * 1.38×10^6 **	1 and 27	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^5 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Achrai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. IGV211 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Puthai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1DV210 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP RHR, HPCI, RCIC AND CS ROOM HVAC/079 Area/Elev./Rm. # 16/177'/103 M.R./M.R. Item # M-123/06

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	5.29×10^6 * 1.38×10^6 **	1 and 27	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.33×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Orehai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1DV210 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Archai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1DV211 RHR, HPCI, RCIC AND CS | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP ROOM HVAC/079 | Area/Elev./Rm. # 12/177'/114 | M.R./M.R. Item # M-123/07

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.95×10^6 * 1.38×10^6 **	1 and 27	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Pichai | Date 11/30/83

Comments * Accident and N al Gamma

** Accident Beta

PLANT I. D. 1DV211 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pothai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1EV210 RHR, HPCI, RCIC AND CS ROOM HVAC/079 | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP | Area/Elev./Rm. # 15/177'/102 | M.R./M.R. Item # M-123/06

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	5.29×10^6 * 1.38×10^6 **	1 and 27	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1EV210 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1EV211 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP RHR, HPCI, RCIC AND CS ROOM HVAC/079 Area/Elev./Rm. # 11/177'/110 M.R./M.R. Item # M-123/07

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.95×10^6 * 1.38×10^6 **	1 and 27	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/29/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Pichai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1EV211 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orlowski DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1FV210 RHR, HPCI, RCIC AND CS ROOM HVAC/079 | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # M-123/06

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	5.29×10^6 * 1.38×10^6 **	1 and 27	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Dahvi Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1EV210 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. O'Shea DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1FV211 RHR, HPCI, RCIC AND CS | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP ROOM HVAC/079 | Area/Elev./Rm. # 12/177'/117 | M.R./M.R. Item # M-123/07

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.95×10^6 * 1.38×10^6 **	1 and 27	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Achari | Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1FV211 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pochan DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1GV210 RHR, HPCI, RCIC AND CS | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP ROOM HVAC/079 | Area/Elev./Rm. # 15/177'/102 | M.R./M.R. Item # M-123/06

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	5.29×10^6 * 1.38×10^6 **	1 and 27	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Orchan Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1GV210 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pochesi DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1GV211 RHR, HPCI, RCIC AND CS ROOM HVAC/079 | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP | Area/Elev./Rm. # 11/177'/113 | M.R./M.R. Item # M-123/07

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.95×10^6 * 1.38×10^6 **	1 and 27	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/83

Reviewed By V. Ochrai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1GV211 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-I-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Pachai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1HV210 RHR, HPCI, RCIC AND CS | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP ROOM HVAC/079 | Area/Elev./Rm. # 16/177'/103 | M.R./M.R. Item # M-123/06

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	5.29×10^6 * 1.38×10^6 **	1 and 27	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/28/83

Prepared By B. R. Patel | Date 7/28/83

Reviewed By V. Rohai | Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1HV210 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Dc radation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Ochwai DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1HV211 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP RHR, HPCI, RCIC AND CS ROOM HVAC/079 Area/Elev./Rm. # 12/177'/114 M.R./M.R. Item # M-123/07

Ref. Dwg. # P&ID M-76 Sh. 1 Rev. 7 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	115	37	115	1	115	1
Pressure (PSIG)	Atmosphere	37	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	3.95×10^6 * 1.38×10^6 **	1 and 27	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	26	37	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	37	180 days	3

Overall EQ Status Acceptable (See Form #2)

Revision # 0 Date 7/28/83

Prepared By B. R. Patel Date 7/28/33

Reviewed By V. Ochwai Date 11/30/83

Comments * Accident and Normal Gamma

** Accident Beta

PLANT I. D. 1HV211 DESCRIPTION Fan

SYSTEM/CCP RHR, HPCI, RCIC, AND CS ROOMS HVAC/079 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec. HH-1-545B, Type II	TEMPERATURE (°F)	--	--	Insulation sandwiched between fan housing skins. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	--	--	
			RADIATION (Rads)	--	--	
			HUMIDITY (%)	--	--	
			AGING ANALYSIS	--	--	

REVISION # 0 DATE 11/18/83

PREPARED BY D. Sexton DATE 11/18/83

REVIEWED BY V. Orchard DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D.	HV-76-107	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	16/283'/500	M.R./M.R. Item #	M-070/1
Ref. Dwg. #	P&ID M-76 Sh.1 Rev.7	Foreign Print #	8031-M-70-34-7	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	33	104	1	120	1
Pressure (PSIG)	3.5" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	9.52×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.43×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* (Accident and Normal Gamma)
Revision #	0	Date	7/27/83		** (Accident Beta)
Prepared By	B. R. Patel	Date	7/27/83		
Reviewed By	S A Kumar	Date	11/27/83		

PLANT I. D. HV-76-107

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Enclosure Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-M-70-87-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-107

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50, 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-87-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-107

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve Assembly	12	AISI 316 (Stainless) and Ethylene Propylene 75 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-87-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-107

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-34-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-108	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	16/283'/500	M.R./M.R. Item #	M-070/1
Ref. Dwg. #	P&ID M-76 Sh.1 Rev.7	Foreign Print #	8031-M-70-34-7	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	33	104	1	120	1
Pressure (PSIG)	3.5" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	9.52×10^4* 5.91×10^2**	1 and 27	8.78×10^2 (Gamma)	1	9.43×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* (Accident and Normal Gamma)
Revision #	0	Date	7/27/83		** (Accident Beta)
Prepared By	B. R. Patel	Date	7/27/83		
Reviewed By	JAKumar	Date	11/27/83		

PLANT I. D. HV-76-108

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY P.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-87-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-108

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50, 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY P.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-87-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-108

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Snubber Valve Assembly	12	AISI 316 (Stainless) and Ethylene Propylene 75 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-87-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

Form #2 EQRR # 2 SHEET 4 OF 5

PLANT I. D. HV-76-108

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY P.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-34-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, for exceeds plant life and end of life accident.

Plant I.D. HV-76-117 Description Air Op. Butterfly Valve Equip. Manuf. Allis/Chalmers

System/CCP Reactor Enclosure Isolation/080 Area/Elev./Rm. # 15/283'/519 M.R./M.R. Item # M-070/2

Ref. Dwg. # P&ID M-76 Sh.1 Rev. 7 Foreign Print # 8031-M-70-36-8 P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	33	104	1	120	1
Pressure (PSIG)	1.8" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status Acceptable (See Form #2) Comments * (Accident and Normal Gamma)

Revision # 0 Date 7/27/83 ** (Accident Beta)

Prepared By B. R. Patel Date 7/27/83

Reviewed By P.K. Kumar Date 11/27/83

PLANT I. D. HV-76-117

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-8[illegible]-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76- 117

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-117 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-117

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-M-70-36-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-118	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	15/283'/519	M.R./M.R. Item #	M-070/2
Ref. Dwg. #	P&ID M-76 Sh.1 Rev.7	Foreign Print #	8031-M-70-36-8	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	100	33	104	1	120	1
Pressure (PSIG)	1.8" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* (Accident and Normal Gamma)
Revision #	0	Date	7/27/83		** (Accident Beta)
Prepared By	B. R. Patel	Date	7/27/83		
Reviewed By	[signature]	Date	11/27/83		

PLANT I. D. HV-76- 118

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

Form #2 EQRR # 4 SHEET 2 OF 5

PLANT I. D. HV-76-118 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76- 118

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-118

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-36-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-151	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	15/283'/519	M.R./M.R. Item #	M-070/6
Ref. Dwg. #	P&ID M-76 Sh. 2 Rev. 8	Foreign Print #	8031-M-70-40-9	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	3.0" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* (Accident and Normal Gamma)
Revision #	0	Date	7/27/83		** (Accident Beta)
Prepared By	B. R. Patel	Date	7/27/83		
Reviewed By	JA Kumar	Date	11/27/83		

PLANT I. D. HV-76- 151

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY P.A. Lewis DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-151 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKeenan DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-151

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	75	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PA Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-151

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY BAKewan DATE 11/27/83

FOREIGN PRINT # 8031-M-70-40-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-152	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	15/283'/519	M.R./M.R. Item #	M-070/6
Ref. Dwg. #	P&ID M-76 Sh. 2 Rev. 8	Foreign Print #	8031-M-70-40-9	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	3.0" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	8.85×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	8.76×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 7/27/83

Prepared By: B. R. Patel Date: 7/27/83

Reviewed By: A.K. Kumar Date: 11/27/83

Comments: * (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. HV-76-152 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY R Alcaraz DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-152

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-152

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/08C

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A.Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-152

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-40-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-159	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	[illegible]/313'/605	M.R./M.R. Item #	M-070/7
Ref. Dwg. #	P&ID M-76 Sh.2 Rev.8	Foreign Print #	8031-M-70-1-8	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	3.0" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.02×10^3 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 7/27/83

Prepared By: B. R. Patel Date: 7/27/83

Reviewed By: A Kumar Date: 7/27/83

Comments: * (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. HV-76- 159

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAkumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76- 159

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	e comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PM Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-159

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

Form #2

EQRR # 7

PLANT I. D. HV-76-159

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-1-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident,

Plant I.D. HV-76-160 Description Air Op. Butterfly Valve Equip. Manuf. Allis/Chalmers

System/CCP Reactor Enclosure Isolation/080 Area/Elev./Rm. # 15/313'/605 M.R./M.R. Item # M-070/7

Ref. Dwg. # P&ID M-76 Sh.2 Rev.8 Foreign Print # 8031-M-70-1-8 P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	3.0" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.02×10^3 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status Acceptable (See Form #2)

Comments * (Accident and Normal Gamma)

** (Accident Beta)

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By PAKumar Date 11/27/83

Form #1 EQRR # 8 Sheet 1 of 5

PLANT I. D. HV-76- 160

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/24/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76- 160

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY AKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-160

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

Form #2 EQRR # 8 SHEET 4 OF 5

PLANT I. D. HV-76-160

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY P.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-1-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-167	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	16/283'/506C	M.R./M.R. Item #	M-070/4
Ref. Dwg. #	P&ID M-76 Sh.2 Rev.8	Foreign Print #	8031-M-70-38-8	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	120	33	104	1	120	1
Pressure (PSIG)	2.3" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	9.52×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.43×10^4 (Gamma) 5.91×10^2 (Beta	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* (Accident and Normal Gamma)
Revision #	0	Date	7/27/83		** (Accident Beta)
Prepared By	B. R. Patel	Date	7/27/83		
Reviewed By	P.A. Kumar	Date	11/27/83		

PLANT I. D. HV-76-167

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76- 167

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-167

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 4/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-167

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY Akumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-38-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D. HV-76-168 | Description Air Op. Butterfly Valve | Equip. Manuf. Allis/Chalmers

System/CCP Reactor Enclosure Isolation/080 | Area/Elev./Rm. # 16/283'/506C | M.R./M.R. Item # M-070/4

Ref. Dwg. # P&ID M-76 Sh.2 Rev.8 | Foreign Print # 8031-M-70-38-8 | P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	120	33	104	1	120	1
Pressure (PSIG)	2.3" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	9.52×10^4 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	9.43×10^4 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status Acceptable (See Form #2)

Revision # 0 | Date 7/27/83

Prepared By B. R. Patel | Date 7/27/83

Reviewed By P.K.Kumar | Date 11/27/83

Comments * (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. HV-76- 168

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76- 168

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-168

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-168

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY P.A. Cumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-38-8

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-169	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	15/313'/605	M.R./M.R. Item #	M-070/8
Ref. Dwg. #	P&ID M-76 Sh.2 Rev.8	Foreign Print #	8031-M-70-2-7	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	3.0" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.02×10^3 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status: Acceptable (See Form #2)

Revision #: 0 Date: 7/27/83

Prepared By: B. R. Patel Date: 7/27/83

Reviewed By: A Kumar Date: 11/27/83

Comments: * (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. HV-76-169

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-169

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-169

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY AKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-169

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-2-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-170	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	15/313'/605	M.R./M.R. Item #	M-070/8
Ref. Dwg. #	P&ID M-76 Sh.2 Rev.8	Foreign Print #	8031-M-70-2-7	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	3.0" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.02×10^3 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status	Acceptable (See Form #2)			Comments	* (Accident and Normal Gamma)
Revision #	0	Date	7/27/83		** (Accident Beta)
Prepared By	B. R. Patel	Date	7/27/83		
Reviewed By	P.A. Kumar	Date	11/27/83		

PLANT I. D. HV-76- 170

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY Akumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-170 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation 080 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50 & 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80 & 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-170 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve	12	AISI 316 (Stainless) and Ethylene Propylene 70 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-86-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-170 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-2-7

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

Plant I.D.	HV-76-196	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Reactor Enclosure Isolation/080	Area/Elev./Rm. #	12/313'/605	M.R./M.R. Item #	M-070/9
Ref. Dwg. #	P&ID M-76 Sh.3 Rev.9	Foreign Print #	8031-M-70-4-6	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	3.0" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.02×10^3 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status	Acceptable (See Form #2)	Comments	* (Accident and Normal Gamma)
Revision #	0	Date	7/27/83
Prepared By	B. R. Patel	Date	7/27/83
Reviewed By	AKumar	Date	11/27/83

PLANT I. D. HV-76-196

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cover Gasket	6-60	Asbestos	TEMPERATURE (°F)	1200	66	
Adapter Gasket	6-70	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY AKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-92-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-196 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring		EPDM	TEMPERATURE (°F)	See Aging Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-4-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. HV-76- 196

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	6-20, 6-40 & 6-50	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Piston 'U'-Cup Seal	6-10	Ethylene Propylene	RADIATION (Rads)	10^7	62	
Seal	6-30	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-89-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-196

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing		Asbestos (John Crane 187-I end rings and John Crane-Grafoil intermediate rings)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-4-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

PLANT I. D. HV-76-196 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Rubber Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-4-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. HV-76-196 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve Assembly	8	AISI 316 (Stainless) and Ethylene Propylene 75 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY AA Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-92-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

Plant I.D. HV-76-197 | Description Air Op. Butterfly Valve | Equip. Manuf. Allis/Chalmers

System/CCP Reactor Enclosure Isolation/080 | Area/Elev./Rm. # 12/313'/605 | M.R./M.R. Item # M-070/9

Ref. Dwg. # P&ID M-76 Sh.3 Rev.9 | Foreign Print # 8031-M-70-4-6 | P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	3.0" W.g.	33	- 1/4" W.g.	1	Atmosphere	1
Radiation (Rads)	1.02×10^3 * 5.91×10^2 **	1 and 27	8.78×10^2 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 Years	33	1 Hour	2

Overall EQ Status Acceptable (See Form #2)

Comments * (Accident and Normal Gamma)

** (Accident Beta)

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By PAKumar Date 11/27/83

PLANT I. D. HV-76-197 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080 REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Cover Gasket	6-60	Asbestos	TEMPERATURE (°F)	1200	66	
Adapter Gasket	6-70	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-92-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-197

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
"O" Ring		EPDM	TEMPERATURE (°F)	See Aging Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY A.K. Kumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-4-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. HV-76-197

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	6-20, 6-40 & 6-50	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
Piston 'U'-Cup Seal	6-10	Ethylene Propylene Grafoil	RADIATION (Rads)	10^7	62	
Seal	6-30	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-89-1

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-197

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
Packing		Asbestos (John Crane 187-I end rings and John Crane - Grafoil intermediate rings)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$1x10^{10}$	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See comments	—	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY [signature] DATE 11/27/83

FOREIGN PRINT # 8031-M-70-4-6

RECOMMENDED REPLACEMENT SCHEDULE (Based on EQ None Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (ref. 81)

Form #2 EQRR # 14 SHEET 5 OF 7

PLANT I. D. HV-76-197

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Rubber Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis Calculation	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 & 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See comments	79	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-4-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident.

PLANT I. D. HV-76-197

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Reactor Enclosure Isolation/080

REQUIRED CONDITIONS 2 & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve Assembly	8	AISI 316 (Stainless) and Ethylene Propylene 75 Duro	TEMPERATURE (°F)	See Aging Analysis	—	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A See comments	76	

REVISION # 0 DATE 10/14/83

PREPARED BY V. Pichai DATE 10/14/83

REVIEWED BY PAKumar DATE 11/27/83

FOREIGN PRINT # 8031-M-70-92-4

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

Plant I.D. HV-52-127 Description Motor Op. Gate Valve Equip. Manuf. Anchor/Darling

System/CCP Suppression Pool Cleanup/081 Area/Elev./Rm. # 16/177'/118 M.R./M.R. item # P-102A/5.13

Ref. Dwg. # P&ID M-52 Rev. 17 Foreign Print # 8031-P-102A-152-4 P.O. # P-102A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	104	1	120	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^5 (Accident Gamma)	70	8.78×10^2 (Gamma)	1	1.46×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status Acceptable (See Form #2) Comments

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By D. B. Lenz Date 11/28/83

PLANT I. D. HV-52-127

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Suppression Pool Cleanup/081

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	100	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY D. E. Letson DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-152-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-52-127

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Suppression Pool Cleanup/081

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	110	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY D. E. Lepp DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-152-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-127

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Suppression Pool Cleanup/081

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	111	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY D. G. Lehn DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-152-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HV-52-128	Description	Motor Op. Gate Valve	Equip. Manuf.	Anchor/Darling
System/CCP	Suppression Pool Cleanup/081	Area/Elev./Rm. #	16/177'/118	M.R./M.R. Item #	P-102/5.13
Ref. Dwg. #	P&ID M-52 Rev. 17	Foreign Print #	8031-P-102A-152-4	P.O. #	P-102

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	104	1	120	1
Pressure (PSIG)	125	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	1.45×10^5 (Accident Gamma)	70	8.78×10^2 (Gamma)	1	1.45×10^2 (Gamma) 5.91×10^2 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	43	1 hour	2

Overall EQ Status: Acceptable (See Form #2)

Comments:

Revision # 0 Date 7/27/83

Prepared By B. R. Patel Date 7/27/83

Reviewed By D. G. [illegible] Date 11/28/83

PLANT I. D. HV-52-128

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Suppression Pool Cleanup/081

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Gasket	100	S.S. and Asbestos (Flexitallic)	TEMPERATURE (°F)	1200	66	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY D. E Lemon DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-152-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities far exceed required conditions.

PLANT I. D. HV-52-128

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Suppression Pool Cleanup/081

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Lower)	110	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	-	

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY D. C. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-152-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on ~~EQ evaluation~~)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-52-128

DESCRIPTION Motor Operated Gate Valve

SYSTEM/CCP Suppression Pool Cleanup/081

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing (Upper)	111	Asbestos (John Crane 187-I)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)		

REVISION # 0 DATE 10/10/83

PREPARED BY V. Pichai DATE 10/10/83

REVIEWED BY D. E. Lee DATE 11/28/83

FOREIGN PRINT # 8031-P-102A-152-4

RECOMMENDED REPLACEMENT SCHEDULE None - (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

Plant I.D.	HD-76-040A	Description	Elec.-Hydr. Damper	Equip. Manuf.	American Warming & Ventilating, Inc.
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/624	M.R./M.R. Item #	M-113/04
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-113-299(1)-2, 8031-M-113-302-3, & 8031-M-113-301-3	P.O. #	M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	7" w.g.	36	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status _____

Comments No non-metallic parts

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By Akmar Date 12/8/83

Plant I.D.	HD-76-040B	Description	Elec.-Hydr. Damper	Equip. Manuf.	American Warming & Ventilating, Inc.
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/624	M.R./M.R. Item #	M-113/04
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-113-299(1)-2, 8031-M-113-302-3, & 8031-M-113-301-3	P.O. #	M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	7" w.g.	36	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status

Comments: No non-metallic parts

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/3/83

Reviewed By GAKumar Date 12/5/83

Plant I.D.	HD-76-041A	Description	Elec.-Hydr. Damper	Equip. Manuf.	American Warming & Ventilating, Inc.
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/624	M.R./M.R. Item #	M-113/04
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-113-299(1)-2, 8031-M-113-302-3, & 8031-M-113-301-3	P.O. #	M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	7" w.g.	36	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status _____

Comments No non-metallic parts

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By A Kumar Date 12/8/83

Plant I.D. HD-76-041B | Description Elec.-Hydr. Damper | Equip. Manuf. American Warming & Ventilating, Inc.

System/CCP Standby Gas Treatment/090 | Area/Elev./Rm. # 08/332'/624 | M.R./M.R. Item # M-113/04

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 8 | Foreign Print # 8031-M-113-299(1)-2, 8031-M-113-302-3, & 8031-M-113-301-3 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	7" w.g.	36	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status

Comments No non-metallic parts

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By R A Kinney Date 12/9/83

Form #1 EQRR # 4 Sheet 1 of 1

Plant I.D. HV-76-011A | Description Hydr. Act Butterfly Valve | Equip Manuf. Allis/Chalmers

System/CCP Standby Gas Treatment/090 | Area/Elev./Rm. # 08/332'/624 | M.R./M.R. Item #M-070/13

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 8 | Foreign Print # 8031-M-70-9-9 | P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	23" W.G.	33	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/8/83

Prepared By J. Sexton Date 12/8/83

Reviewed By A Kumar Date 12/9/83

PLANT I. D. HV-76-011A

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY [signature] DATE 11/28/83

FOREIGN PRINT # 8031-M-70-9-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

Plant I.D.	HV-76-011B	Description	Hydr. Act Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/624	M.R./M.R. Item #	M-070/13
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-70-9-9	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	23" W.G.	33	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By R.A. Kumar Date 11/26/83

PLANT I. D. HV-76-011B

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY Pakman DATE 11/26/83

FOREIGN PRINT # 8031-M-70-9-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

Plant I.D.	HV-76-012A	Description	Elec.-Hydr. Act Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/624	M.R./M.R. Item #	M-070/14
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-70-9-9	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	23" W.G.	33	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By P.A. Kumar Date 12/8/83

PLANT I. D. HV-76-012A

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY [signature] DATE 11/26/83

FOREIGN PRINT # 8031-M-70-9-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

Plant I.D.	HV-76-012B	Description	Elec.-Hydr. Act Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/624	M.R./M.R. Item #	M-070/14
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-70-9-9	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	23" W.G.	33	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By A Kumar Date 12/8/83

PLANT I. D. HV-76-012B

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Vane Seal		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY R Kumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-9-9

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

Plant I.D.	HV-76-013A	Description	Hydr. Act Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/624	M.R./M.R. Item #	M-070/15
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-70-11-5	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	23" W.G.	33	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By A Kumar Date 12/8/83

Form #1 EQRR # 9 Sheet 1 of 3

PLANT I. D. HV-76-013A

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Rings		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY AKumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-11-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

PLANT I. D. HV-76-013A

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Ring		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY PAKuman DATE 11/26/83

FOREIGN PRINT # 8031-M-70-11-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

Plant I.D.	HV-76-013B	Description	Hydr. Act Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/624	M.R./M.R. Item #	M-070/15
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-70-11-5	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	120	1
Pressure (PSIG)	23" W.G.	33	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By PAKuman Date 12/8/83

PLANT I. D. HV-76-013B

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Rings		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY PAKumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-11-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

PLANT I. D. HV-76-013B

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Seat Ring		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY A Kumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-11-5

RECOMMENDED REPLACEMENT SCHEDULE ~~None~~ (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

Plant I.D.	HV-76-030	Description	Air Op. Butterfly Valve	Equip. Manuf.	Allis/Chalmers
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/625	M.R./M.R. Item #	M-070/10
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-70-6-6	P.O. #	M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	104	1
Pressure (PSIG)	24" W.G.	33	Atmos.	1	Atmos.	1
Radiation (Rads)			8.78×10^2 (Gamma)	1	1.26×10^2 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status _____ Comments _____

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By P.A. Kumar Date 12/8/83

PLANT I. D. HV-76-030

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY PAkumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-90-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-030

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION: PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
O-Ring		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY P.A. Kumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-6-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

Form #2 EQRR # 11

PLANT I. D. HV-76-030 DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090 REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50, 3-60	Ethylene Propyiene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80, 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY RAKumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-90-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-030

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PARY NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing		Asbestos End Rings (John Crane 187-I and intermediate rings John Crane-Grafoil)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY P.Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-6-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-76-030

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Retainer Ring		ASTM-A575 & Nylon	TEMPERATURE (°F)	400	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	$4.7X10^6$	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY RAKennon DATE 11/26/83

FOREIGN PRINT # 8031-M-70-6-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-030

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve Assembly	12	AISI 316 (Stainless) and Ethylene Propylene 75 Duro	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY P Kumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-90-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-030

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Valve Seat		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY PAKumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-6-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

Plant I.D. HV-76-031 Description Air Op. Butterfly Valve Equip. Manuf. Allis/Chalmers

System/CCP Standby Gas Treatment/090 Area/Elev./Rm. # 08/332'/625 M.R./M.R. Item # M-070/10

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 8 Foreign Print # 8031-M-70-6-6 P.O. # M-070

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	150	33	104	1	104	1
Pressure (PSIG)	24" W.G.	33	Atmos.	1	Atmos.	1
Radiation (Rads)			8.78×10^2 (Gamma)	1	1.26×10^2 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	33	180 days	2

Overall EQ Status

Comments

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By PAKumar Date 12/8/83

Form #1 EQRR # 12 Sheet 1 of 8

PLANT I. D. HV-76-031

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
End Cap Gasket	3-10	Asbestos	TEMPERATURE (°F)	1200	66	
Cover Gasket	3-20	Asbestos	PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	66	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY PAKumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-90-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based On EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-031

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY SAKeman DATE 11/26/83

FOREIGN PRINT # 8031-M-70-6-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

PLANT I. D. HV-76-031

DESCRIPTION Air Operated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
O-Ring Seal	3-30, 3-40, 3-50, 3-60	Ethylene Propylene	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
Vee Pack Seal	3-70	Ethylene Propylene	RADIATION (Rads)	10^7	62	
T-Seal	3-80, 3-90	Ethylene Propylene	HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY P.K. Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-90-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-031

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Packing		Asbestos End Rings (John Crane 187-I and intermediate rings John Crane-Grafoil)	TEMPERATURE (°F)	1200	81	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	1×10^{10}	81	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	N/A (See Comments)	--	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY P.K. Iyer DATE 11/26/83

FOREIGN PRINT # 8031-M-70-6-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions. Deterioration of BUNA binder prior to reaching specified material capabilities will not cause sealing capability deterioration. (Ref. 81)

PLANT I. D. HV-76-031

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Retainer Ring		ASTM-A575 & Nylon	TEMPERATURE (°F)	400	72	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	4.7×10^6	67	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	--	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY A Kumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-6-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities exceed required conditions.

PLANT I. D. HV-76-031 DESCRIPTION Air Operated Butterfly VAlve

SYSTEM/CCP Standby Gas Treatment/090 REQUIRED CONDITIONS 2 and 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Snubber Valve Assembly	12	AISI 316 (Stainless) and Ethylene Propylene 75 Duro	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	10^7	62	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	76	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY PAKumar DATE 11/26/83

FOREIGN PRINT # 8031-M-70-90-5

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material capabilities, based on aging analysis, far exceed plant design life and accident conditions.

PLANT I. D. HV-76-031

DESCRIPTION Elect-Hyd Actuated Butterfly Valve

SYSTEM/CCP Standby Gas Treatment/090

REQUIRED CONDITIONS 1,2,&3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Valve Seat		EPDM	TEMPERATURE (°F)	See Aging Analysis	--	
			PRESSURE (PSIG)	N/A	27	
			RADIATION (Rads)	3.5×10^7	84 and 85	
			HUMIDITY (%)	N/A	27	
			AGING ANALYSIS	See Comments	79	

REVISION # 0 DATE 10/28/83

PREPARED BY V. Pichai DATE 10/28/83

REVIEWED BY A Kumar DATE 11/28/83

FOREIGN PRINT # 8031-M-70-6-6

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS Material degradation time, based on aging analysis, far exceeds plant life and end of life accident assumption.

Plant I.D. PDC-76-039A | Description Elec.-Hydr. Control Damper | Equip. Manuf. American Warming & Ventilating, Inc.

System/CCP Standby Gas Treatment/090 | Area/Elev./Rm. # 08/332'/624 | M.R./M.R. Item # M-113/04

Ref. Dwg. # P&ID M-76 Sh. 3 Rev. 8 | Foreign Print # 8031-M-113-299(2)-2, 8031-M-113-302-3, & 8031-M-113-301-3 | P.O. # M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	-25" w.g.	36	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status _____

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By P.A. Kumar Date 12/8/83

Comments No non-metallic parts

Form #1 EQRR # 13 Sheet 1 of 1

Plant I.D.	PDC-76-039B	Description	Elec.-Hydr. Control Damper	Equip. Manuf.	American Warming & Ventilating, Inc.
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/624	M.R./M.R. Item #	M-113/04
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-113-299(2)-2 8031-M-113-302-3, & 8031-M-113-301-3	P.O. #	M-113

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	165	36	104	1	120	1
Pressure (PSIG)	-25" w.g.	36	Atmos.	1	Atmos.	1
Radiation (Rads)			8.23×10^3 (Gamma)	1	3.22×10^5 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	36	180 days	2

Overall EQ Status _____

Comments No non-metallic parts

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/83

Reviewed By PA Kumar Date 12/8/83

Form #1 EQRR # 14 Sheet 1 of 1

Plant I.D.	OAV109	Description	Exhaust Fan	Equip. Manuf.	Buffalo Forge
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/625	M.R./M.R. Item #	M-054A/1
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-54A-15-16	P.O. #	M-054A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)			104	1	104	1
Pressure (PSIG)	7" W.G. (Static Pressure)	30	Atmos.	1	Atmos.	1
Radiation (Rads)			8.78×10^2 (Gamma)	1	1.26×10^2 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	30	180 days	2

Overall EQ Status

Comments: No non-metallic parts

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/8/33

Reviewed By PAKumar Date 12/9/83

Form #1 EQRR # 15 Sheet 1 of 1

Plant I.D.	OBV109	Description	Exhaust Fan	Equip. Manuf.	Buffalo Forge
System/CCP	Standby Gas Treatment/090	Area/Elev./Rm. #	08/332'/625	M.R./M.R. Item #	M-054A/1
Ref. Dwg. #	P&ID M-76 Sh. 3 Rev. 8	Foreign Print #	8031-M-54A-15-16	P.O. #	M-054A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)			104	1	104	1
Pressure (PSIG)	7" W.G. (Static pressure)	30	Atmos.	1	Atmos.	1
Radiation (Rads)			8.78×10^2 (Gamma)	1	1.26×10^2 (Gamma)	1
Humidity (%)			90	1	90	1
Submergence					No	13
Required Operating Time			40 years	30	180 days	2

Overall EQ Status _____ Comments No non-metallic parts

Revision # 1 Date 12/8/83

Prepared By D. Sexton Date 12/3/83

Reviewed By R Kumar Date 12/8/83

Plant I.D. 1AV212 | Description Fan | Equip. Manuf. American Air Filter Co.

System/CCP Drywell HVAC Cooling/098 | Area/Elev./Rm. # 15C/238'/Z-4 | M.R./M.R. Item # M-123/8

Ref. Dwg. # P&ID M-77, Rev.3 | Foreign Print # 8031-M-123-264-2 | P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	37	150	1	340	1
Pressure (PSIG)	55	37	.75	1	44.0	1
Radiation (Rads)	5.39×10^7 * 1.18×10^9 **	1 and 27	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	90	37	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	37	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 | Date 12/6/83

Prepared By D. Sexton | Date 12/6/83

Reviewed By PAkman | Date 12/6/1983

Comments Fan subject to chemical spray

* (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. 1AV212 DESCRIPTION Fan

SYSTEM/CCP Drywell HVAC Cooling/098 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec HH-1-5458, Type II	TEMPERATURE (°F)	—	—	Insulation sandwiched between fan housing skin. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/18/83

PREPARED BY D.Sexton DATE 11/18/83

REVIEWED BY SA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1BV212 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP Drywell HVAC Cooling/098 Area/Elev./Rm. # 15C/238'/Z-4 M.R./M.R. Item # M-123/8

Ref. Dwg. # P&ID M-77, Rev.3 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	37	150	1	340	1
Pressure (PSIG)	55	37	.75	1	44.0	1
Radiation (Rads)	6.39×10^7 * 1.18×10^9 **	1 and 27	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	90	37	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	37	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By P.A. Cuman Date 12/6/83

Comments Fan subject to chemical spray

* (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. 1BV212 DESCRIPTION Fan

SYSTEM/CCP Drywell HVAC Cooling/098 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec HH-1-5458, Type II	TEMPERATURE (°F)	—	—	Insulation sandwiched between fan housing skin. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/18/83

PREPARED BY D.Sexton DATE 11/18/83

REVIEWED BY PA Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1CV212 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP Drywell HVAC Cooling/098 Area/Elev./Rm. # 15C/238'/Z-4 M.R./M.R. Item # M-123/8

Ref. Dwg. # P&ID M-77, Rev.3 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	37	150	1	340	1
Pressure (PSIG)	55	37	.75	1	44.0	1
Radiation (Rads)	6.39×10^7 * 1.18×10^9 **	1 and 27	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	90	37	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	37	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By PAKumar Date 12/6/83

Comments Fan subject to chemical spray

* (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. 1CV212

DESCRIPTION Fan

SYSTEM/CCP Drywell HVAC Cooling/098

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec HH-1-5458, Type II	TEMPERATURE (°F)	—	—	Insulation sandwiched between fan housing skin. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/18/83

PREPARED BY D.Sexton DATE 11/18/83

REVIEWED BY JAKumar DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None. (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1DV212	Description Fan	Equip. Manuf. American Air Filter Co.
System/CCP Drywell HVAC Cooling/098	Area/Elev./Rm. # 15C/238'/Z-4	M.R./M.R. Item # M-123/8
Ref. Dwg. # P&ID M-77, Rev.3	Foreign Print # 8031-M-123-264-2	P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	37	150	1	340	1
Pressure (PSIG)	55	37	.75	1	44.0	1
Radiation (Rads)	6.39×10^7 * 1.18×10^9 **	1 and 27	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	90	37	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	37	180 Days	2

Overall EQ Status: Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By P A Kuman Date 12/6/83

Comments: Fan subject to chemical spray

* (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. 1DV212

DESCRIPTION Fan

SYSTEM/CCP Drywell HVAC Cooling/Q98

REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec HH-1-5458, Type II	TEMPERATURE (°F)	—	—	Insulation sandwiched between fan housing skin. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/18/83

PREPARED BY D.Sexton DATE 11/18/83

REVIEWED BY H.A.Kuman DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1EV212	Description Fan	Equip. Manuf. American Air Filter Co.
System/CCP Drywell HVAC Cooling/098	Area/Elev./Rm. # 15C/238'/Z-4	M.R./M.R. Item # M-123/8
Ref. Dwg. # P&ID M-77, Rev. 3	Foreign Print # 8031-M-123-264-2	P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	37	150	1	340	1
Pressure (PSIG)	55	37	75	1	44.0	1
Radiation (Rads)	6.39×10^7 * 1.18×10^9 **	1 and 27	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	90	37	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	37	180 Days	2

Overall EQ Status: Acceptable (See Form #2)

Comments: Fan subject to chemical spray

Revision # 1 Date 12/6/83

* (Accident and Normal Gamma)

Prepared By D. Sexton Date 12/6/83

** (Accident Beta)

Reviewed By M Kumar Date 12/6/83

PLANT I. D. 1EV212 DESCRIPTION Fan

SYSTEM/CCP Drywell HVAC Cooling/098 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec HH-1-5458, Type II	TEMPERATURE (°F)	—	—	Insulation sandwiched between fan housing skin. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/18/83

PREPARED BY D.Sexton DATE 11/18/83

REVIEWED BY A Kumas DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1FV212 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP Drywell HVAC Cooling/098 Area/Elev./Rm. # 15C/238'/Z-4 M.R./M.R. Item # M-123/8

Ref. Dwg. # P&ID M-77, Rev.3 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	37	150	1	340	1
Pressure (PSIG)	55	37	.75	1	44.0	1
Radiation (Rads)	6.39×10^7 * 1.18×10^9 **	1 and 27	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	90	37	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	37	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By A Kumar Date 12/6/83

Comments Fan subject to chemical spray

* (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. 1FV212 DESCRIPTION Fan

SYSTEM/CCP Drywell HVAC Cooling/098 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec HH-1-5458, Type II	TEMPERATURE (°F)	—	—	Insulation sandwiched between fan housing skin. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/18/83

PREPARED BY D.Sexton DATE 11/18/83

REVIEWED BY A Kenan DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1GV212 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP Drywell HVAC Cooling/098 Area/Elev./Rm. # 15C/238'/Z-4 M.R./M.R. Item # M-123/8

Ref. Dwg. # P&ID M-77, Rev.3 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	37	150	1	340	1
Pressure (PSIG)	55	37	.75	1	44.0	1
Radiation (Rads)	6.39×10^7 * 1.18×10^9 **	1 and 27	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	90	37	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	37	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By P.A. Kumar Date 12/6/83

Comments Fan subject to chemical spray

* (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. 1GV212 DESCRIPTION Fan

SYSTEM/CCP Drywell HVAC Cooling/098 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec HH-1-5458, Type II	TEMPERATURE (°F)	—	—	Insulation sandwiched between fan housing skin. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/18/83

PREPARED BY D.Sexton DATE 11/18/83

REVIEWED BY RAKuney DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1HV212 Description Fan Equip. Manuf. American Air Filter Co.

System/CCP Drywell HVAC Cooling/098 Area/Elev./Rm. # 15C/238'/Z-4 M.R./M.R. Item # M-123/8

Ref. Dwg. # P&ID M-77, Rev.3 Foreign Print # 8031-M-123-264-2 P.O. # M-123

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	340	37	150	1	340	1
Pressure (PSIG)	55	37	.75	1	44.0	1
Radiation (Rads)	6.39×10^7 * 1.18×10^9 **	1 and 27	1.8×10^7 (Gamma) 5.5×10^6 (Neutrons)	1	4.59×10^7 (Gamma) 1.18×10^9 (Beta)	1
Humidity (%)	90	37	100	1	100	1
Submergence					No	13
Required Operating Time			40 Years	37	180 Days	2

Overall EQ Status Acceptable (See Form #2)

Revision # 1 Date 12/6/83

Prepared By D. Sexton Date 12/6/83

Reviewed By A Kumar Date 12/6/83

Comments Fan subject to chemical spray

* (Accident and Normal Gamma)

** (Accident Beta)

PLANT I. D. 1HV212 DESCRIPTION Fan

SYSTEM/CCP Drywell HVAC Cooling/098 REQUIRED CONDITIONS 1, 2, & 3

NON-METALLIC PART NAME	PART #	PART MATERIAL	IF PART REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION			RATIONALE IF PART NOT REQUIRED FOR THE EQUIPMENT TO PERFORM SAFETY FUNCTION:
			PARAMETERS	MATERIAL CAPABILITY	REFERENCE CODE NUMBER	
Fiberglass Insulation	3	Fiberglass, Mil Spec HH-1-5458, Type II	TEMPERATURE (°F)	—	—	Insulation sandwiched between fan housing skin. Degradation will not impair performance of fan.
			PRESSURE (PSIG)	—	—	
			RADIATION (Rads)	—	—	
			HUMIDITY (%)	—	—	
			AGING ANALYSIS	—	—	

REVISION # 0 DATE 11/18/83

PREPARED BY D.Sexton DATE 11/18/83

REVIEWED BY A Kumar DATE 11/30/83

FOREIGN PRINT # 8031-M-123-264-2

RECOMMENDED REPLACEMENT SCHEDULE None (Based on EQ Evaluation)

NON-METALLIC PART EQ STATUS Acceptable

COMMENTS

Plant I.D. 1032 | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Eill/099 | Area/Elev./Rm. # 15/204'/200 | M.R./M.R. Item # P-114A/4.5

Ref. Dwg. # P&ID M-49 Rev. 16 | Foreign Print # 8031-P-114A-5-10 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	104	1	120	1
Pressure (PSIG)	100	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	8.78×10^2 (Gamma)	1	3.70×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (No non-metallic piece parts) | Comments

Revision # 0 | Date 8/11/83

Prepared By B. R. Patel | Date 8/11/83

Reviewed By D. E. Lem | Date 11/28/83

Plant I.D. 1033		Description Check Valve		Equip. Manuf. Rockwell	
System/CCP Safeguard Piping Ei11/099		Area/Elev./Rm. # 15/204'/200		M.R./M.R. Item # P-114A/4.5	
Ref. Dwg. # P&ID M-49 Rev. 16		Foreign Print # 8031-P-114A-5-10		P.O. # P-114A	

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	104	1	120	1
Pressure (PSIG)	100	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	8.78×10^2 (Gamma)	1	3.70×10^5 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (No non-metallic piece parts)

Comments

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By D. E. Lehman Date 11/28/83

Form #1 EQRR # 2 Sheet 1 of 1

Plant I.D. 1036A | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Ei11/099 | Area/Elev./Rm. # 12/285'/518 | M.R./M.R. Item # P-114A/4.3

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114A-5-10 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	120	1	120	1
Pressure (PSIG)	2132	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	1.35×10^6 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (No non-metallic piece parts)

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By D. E. Date 11/28/83

Comments

Plant I.D. 1036B | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Fill/099 | Area/Elev./Rm. # 11/285'/518 | M.R./M.R. Item # P-114A/4.3

Ref. Dwg. # P&ID M-41 Rev. 18 | Foreign Print # 8031-P-114A-5-10 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	459	3	120	1	120	1
Pressure (PSIG)	2132	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	1.35×10^6 (Gamma)	1	4.71×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (No non-metallic piece parts)

Comments

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By D. E. Sehn Date 11/28/83

Form #1 EQRR # 4 Sheet 1 of 1

Plant I.D. 1048 | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Ei11/099 | Area/Elev./Rm. # 11/202'/200 | M.R./M.R. Item # P-114A/4.5

Ref. Dwg. # P&ID M-55 Rev. 18 | Foreign Print # 8031-P-114A-5-10 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	104	1	120	1
Pressure (PSIG)	1311	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	8.78×10^2 (Gamma)	1	3.74×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status Acceptable (No non-metallic piece parts)

Comments

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By D. G. [illegible] Date 11/28/83

Form #1 EQRR # 5 Sheet 1 of 1

Plant I.D.	1048A	Description	Check Valve	Equip. Manuf.	Rockwell
System/CCP	Safeguard Piping Fill/099	Area/Elev./Rm. #	11/180'/113	M.R./M.R. Item #	P-114A/6.7
Ref. Dwg. #	P&ID M-52 Rev. 16	Foreign Print #	8031-P-114A-1-6	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 (Accident Gamma)	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status: Acceptable (No non-metallic piece parts)

Comments:

Revision #: 0 Date: 8/11/83

Prepared By: B. R. Patel Date: 8/11/83

Reviewed By: D. E. [illegible] Date: 11/28/83

Form #1 EQRR # 6 Sheet 1 of 1

Plant I.D. 1048B	Description Check Valve	Equip. Manuf. Rockwell
System/CCP Safeguard Piping Ei11/099	Area/Elev./Rm. # 12/182'/114	M.R./M.R. Item # P-114A/6.7
Ref. Dwg. # P&ID M-52 Rev. 16	Foreign Print # 8031-P-114A-1-6	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	212	3	115	1	115	1
Pressure (PSIG)	150	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.27×10^6 (Accident Gamma)	70	8.78×10^2 (Gamma)	1	3.95×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic piece parts) Comments

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By D. E. Jeter Date 11/28/83

Plant I.D.	1049	Description	Check Valve	Equip. Manuf.	Rockwell
System/CCP	Safeguard Piping Fill/099	Area/Elev./Rm. #	11/202'/200	M.R./M.R. Item #	P-114A/4.5
Ref. Dwg. #	P&ID M-55 Rev. 18	Foreign Print #	8031-P-114A-5-10	P.O. #	P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	170	3	104	1	120	1
Pressure (PSIG)	1423	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.20×10^5 (Accident Gamma)	70	8.78×10^2 (Gamma)	1	3.74×10^5 (Gamma) 1.77×10^4 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	6 hours	2

Overall EQ Status: Acceptable (No non-metallic piece parts)

Comments:

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By D. E. Peter Date 11/28/83

Plant I.D. 1115A	Description Check Valve	Equip. Manuf. Rockwell
System/CCP Safeguard Piping Fill/099	Area/Elev./Rm. # 15/185'/102	M.R./M.R. Item # P-114A/6.3
Ref. Dwg. # P&ID M-51 Sh2 Rev. 18	Foreign Print # 8031-P-114A-2-8	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6 (Accident and Normal Gamma)	70	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic piece parts)

Comments

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By D. E. Peter Date 11/28/83

Plant I.D. 1115B	Description Check Valve	Equip. Manuf. Rockwell
System/CCP Safeguard Piping Ei11/099	Area/Elev./Rm. # 16/185'/103	M.R./M.R. Item # P-114A/6.3
Ref. Dwg. # P&ID M-51 Sh. 1 Rev. 18	Foreign Print # 8031-P-114A-2-8	P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6 (Accident and Normal Gamma)	70	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic piece parts) Comments

Revision # 0 Date 8/11/83

Prepared By B. R. Patel Date 8/11/83

Reviewed By D. L. Stern Date 11/28/83

Plant I.D. 1115C | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Fill/099 | Area/Elev./Rm. # 15/185'/102 | M.R./M.R. Item # P-114A/6.3

Ref. Dwg. # P&ID M-51 Sh. 2 Rev. 18 | Foreign Print # 8031-P-114A-2-8 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6 (Accident and Normal Gamma)	70	5.09×10^6 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic piece parts) | Comments

Revision # 0 | Date 8/11/83

Prepared By B. K. Patel | Date 8/11/83

Reviewed By D. G. Lohr | Date 11/28/83

Form #1 EQRR # 11 Sheet 1 of 1

Plant I.D. 1115D | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Ei11/099 | Area/Elev./Rm. # 16/185'/103 | M.R./M.R. Item # P-114A/6.3

Ref. Dwg. # P&ID M-51 Sh. 1 Rev. 18 | Foreign Print # 8031-P-114A-2-8 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g	1	Atmosphere	1
Radiation (Rads)	6.47×10^6 (Accident and Normal Gamma)	70	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic piece parts) | Comments

Revision # 0 | Date 8/11/83

Prepared By B. R. Patel | Date 8/11/83

Reviewed By D. E. Shaw | Date 11/28/83

Plant I.D. 1116A | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Ei11/099 | Area/Elev./Rm. # 15/185'/102 | M.R./M.R. Item # P-114A/6.3

Ref. Dwg. # P&ID M-51 Sh. 2 Rev. 18 | Foreign Print # 8031-P-114A-2-8 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6 (Accident and Normal Gamma)	70	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic piece parts) | Comments

Revision # 0 | Date 8/11/83

Prepared By B. R. Patel | Date 8/11/83

Reviewed By D. E. Stein | Date 11/28/83

Plant I.D. 1116B | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Ei11/099 | Area/Elev./Rm. # 16/185'/103 | M.R./M.R. Item # P-114A/6.3

Ref. Dwg. # P&ID M-51 Sh. 1, Rev. 18 | Foreign Print # 8031-P-114A-2-8 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6 (Accident and Normal Gamma)	70	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic piece parts) | Comments

Revision # 0 | Date 8/11/83

Prepared By R. R. Patel | Date 8/11/83

Reviewed By D. E. Sean | Date 11/28/83

Plant I.D. 1116C | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Eill/099 | Area/Elev./Rm. # 15/185'/102 | M.R./M.R. Item # P-114A/6.3

Ref. Dwg. # P&ID M-51 Sh. 2 Rev. 18 | Foreign Print # 8031-P-114A-2-8 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6 (Accident and Normal Gamma)	70	5.09×10^5 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic piece parts) | Comments

Revision # 0 | Date 8/11/83

Prepared By B. R. Patel | Date 8/11/83

Reviewed By D. E. Lean | Date 11/28/83

Plant I.D. 1116D | Description Check Valve | Equip. Manuf. Rockwell

System/CCP Safeguard Piping Fill/099 | Area/Elev./Rm. # 16/185'/103 | M.R./M.R. Item # P-114A/6.3

Ref. Dwg. # P&ID M-51 Sh. 1 Rev. 18 | Foreign Print # 8031-P-114A-2-8 | P.O. # P-114A

Parameters	(#1) Process Condition	Reference Code Number	(#2) Normal Ambient Environ. Condition	Reference Code Number	(#3) Accident Ambient Environ. Condition	Reference Code Number
Temperature (°F)	360	3	115	1	115	1
Pressure (PSIG)	420	3	-1/4" w.g.	1	Atmosphere	1
Radiation (Rads)	6.47×10^6 (Accident and Normal Gamma)	70	5.09×10^6 (Gamma)	1	4.78×10^6 (Gamma) 1.38×10^6 (Beta)	1
Humidity (%)	N/A	N/A	90	1	90	1
Submergence					No	13
Required Operating Time			40 years	2	180 days	2

Overall EQ Status Acceptable (No non-metallic piece parts) | Comments

Revision # 0 | Date 8/11/83

Prepared By B. R. Patel | Date 8/11/83

Reviewed By D. E. Sloan | Date 11/28/83