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1.0 INTRODUCTION

This report has been prepared by EDS Nuclear Inc. for Northern States Power Company as the 90-day response to IE Bulletin No. 79-01B, concerning environmental qualification of Class 1E electrical equipment in the Monticello Nuclear Plant. The report describes the current status of all evaluation efforts associated with the IE Bulletin and defines the actions which are planned to ensure that the required electrical equipment is environmentally qualified.

Preliminary information requested by the IE Bulletin was provided in the preceding 45-day response (Ref. 1). Additional information has been assembled since the earlier submittal. In particular, the environments for equipment outside containment have been identified, and a general plan has been developed to complete the qualification of equipment. However, qualification data for some equipment (particularly that outside containment) is not readily accessible, and the need for a subsequent submittal is anticipated to complete the response to the IE Bulletin. The final submittal will present specific actions and schedules to obtain closure of outstanding items for all equipment, in accordance with the general qualification plan described herein.

2.0 SCOPE

All items identified by IE Bulletin No. 79-01B as "Actions To Be Taken By Licensees of All Power Reactor Facilities with an Operating License" are addressed in this report. The details of the required environmental qualification evaluation are presented in both this 90-day response and the 45-day response (Ref. 1) which was previously submitted to the NRC.

The 45-day response (Ref. 1) provided the following information:

- Identification of all Plant Protection Systems required to function under postulated accident conditions, which include LOCA or HELB inside containment and HELB outside containment;
- Identification of the Class 1E electrical equipment in those systems;
- Definition of the service condition profiles for the equipment located inside containment;
- Status of the environmental qualification evaluations for equipment inside containment.

This 90-day response supplements the previous response and provides the following information:

- Updated status of items covered in the 45-day response;
- Preliminary definition of service condition profiles for the equipment located outside containment;
- Description of the environmental analysis plan to refine the definition of service condition profiles for equipment outside containment;
- Status of the environmental qualification evaluations for equipment located both inside and outside containment.
- Description of the plan to be used to complete the environmental qualification of all the Class 1E electrical equipment identified.

3.0 IDENTIFICATION OF CLASS 1E EQUIPMENT

In accordance with the requirements of IE Bulletin No. 79-01B, a list of all Engineered Safety Feature Systems and associated Class 1E electrical equipment has been prepared. The equipment items have also been catalogued in terms of location in the plant, as a basis for identification of normal service and accident environments under which the equipment must function.

3.1 Equipment Master List

Appendix A contains a master list of all electrical equipment items required to function in the event of a postulated LOCA/HELB inside containment, or an HELB outside containment. The master list represents an update of the list submitted in the earlier 45-day response. Minor changes to the list have been made based on finalization of the systems review. In addition, the manfacturer and model number have been provided for each item on the list.

3.2 Equipment Service Conditions

Each equipment item in the master list must be qualified to operate under the cumulative effects of the normal service and accident environments. As a first step in definition of the required service conditions, the equipment has been catalogued in terms of location in the plant. The location is reflected in the designation in the "environment" column on the equipment lists in Appendix A. The designations correlate in turn to the specific pressure and temperature profiles in Appendix B. These environmental profiles represent worst conditions for each location.

In some cases, additional work may be performed to reduce the severity of the environment for which a particular equipment item must be qualified. This work will consist of a review of the need to qualify an item for the most severe environment, and/or review of the required operating time for an item. As an example, consider an item in the HPCI system located in the HPCI pump room. The most severe environment to which the item would be exposed would result from an HELB in the HPCI room. However, since the HPCI system itself would be rendered inoperative by such a break, qualification of the item to that severe environment would be pointless, and

qualification for the most severe conditions resulting from an HELB outside the HPCI room would be sufficient. The definition of operating time is the duration over which an item must function in an accident. The qualification must demonstrate function only for the required operating time, which may be less than the total duration of the adverse environment.

4.0 DEFINITION OF ENVIRONMENT

The equipment must be qualified for the cumulative effects of the normal service and accident environments. Relevant environmental parameters include pressure and temperature exposure, radiation effects, and submergence. Conservative definitions for the environmental parameters have been established and are described below. Procedures are also given for reduction of the conservative environments through specific analyses on a case-by-case basis.

4.1 Normal Service Environments

Normal service environments for each equipment item will be determined based on location in the plant. Definition of the relevant parameters (e.g., service temperature) will be based on the FSAR, plus actual plant operating data.

4.2 Accident Environments

4.2.1 Inside Containment

The accident environments for the equipment inside containment were defined in Ref. 1.

4.2.2 Outside Containment

The following paragraphs describe the HELB environments outside containment, and present procedures for refinement of the environments on a case-by-case basis if necessary:

a) Pressure and Temperature Profiles

Location-dependent pressure and temperature profiles have been determined for all equipment locations based on the analysis described in Reference 2. These profiles are presented in Appendix B.

The profiles in Appendix B represent bounding values, and may be refined on a case-by-case basis using detailed thermal hydraulic analysis. In such cases, spatial distribution of the temperature and pressure profiles due to high-energy breaks outside containment will

be developed using the EDSFLOW computer code, a modified version of the RELAP4/MOD5 thermal-hydraulics code (Ref. 7). Detailed modeling of the compartments will be performed as necessary. Fluid flow paths, including doorways and blowout panels, will be examined and modeled in detail. Important parameters, such as loss coefficients, nodalization, and time step sizes, will be carefully chosen and sensitivity studies will be performed to ensure the accuracy of the results. Heat sinks will be obtained using the appropriate heat transfer correlations, depending on the size of the break volume relative to the break flow rate and whether the fluid in the compartment is in a state of forced or natural convection.

b) Radiation

The radiation environments specified in the Monticello FSAR will be used as enveloping values for the equipment qualification. As indicated by Table 14-10-4 of the FSAR, the maximum 180-day integrated dose outside containment is 7.9×10^5 rads. The one exception is given in FSAR Section 5-3.3.4 for the Standby Gas Treatment System, for which a 180-day integrated dose of 1.9×10^7 rads is specified.

The enveloping dose values indicated may be refined on a case-by-case basis, either based on definition of a limited operating time for an equipment item, or based on specific analysis. For the analysis, the ORGEN computer code (Ref. 8) will be used to calculate the fission product inventory in the core, and the assumptions in the Monticello FSAR will be used to calculate the concentration of the fission products in the fluid to be recirculated outside the containment. The radiation dosage received by safety-related equipment located nearby will be calculated by taking into account the

attenuating characteristics of the shielding material, such as pipe walls and shield walls, through the use of a point kernel computer code, ISOSCHLD (Ref. 9).

c) Submergence

The flooding due to a HELB has been examined for all systems except the RWCU system. This preliminary analysis indicates that only the HPCI Room and the Turbine Building will experience any significant flooding in the event of a HELB. The flooding level due to a break in the RWCU system will be analyzed using the plant layout drawings, based on the volume of fluid that could escape before the isolation valves close. These flood levels will be compared to height of components above the floor, and the appropriate equipment will be qualified for submergence.

5.0 COMPONENT QUALIFICATION

The objective of this plan is to ensure that all Class 1E electrical equipment in the Monticello Nuclear Plant will function properly during its installed life and in the hostile environment following a HELB. The safety-related Class 1E electrical components will be qualified for all appropriate environmental parameters addressed in Enclosure 4 of IE Bulletin No. 79-01B. These are as follows:

a. Operating Time

b. Temperature

c. Pressure

d. Relative Humidity

e. Chemical Spray

f. Radiation

g. Aging

h. Submergence

5.1 Qualification Procedure

The steps involved in the qualification of the identified electrical equipment are as follows:

a. Qualification data cataloging

For each equipment item to be qualified, available analyses and test reports are sought through the NSSS supplier (General Electric), the Architect-Engineer (Bechtel), the equipment supplier, and in some cases from other utilities who have installed the same equipment. Information is also being obtained through the data base on equipment qualification being assembled by EPRI.

b. Definition of environment

The normal and accident service conditions are identified for each component to be qualified

c. Acceptance criteria definition

The acceptance criteria basically require that the qualification data demonstrate the ability of the equipment to perform its intended safety function when subjected to the cumulative effects of the normal and accident service conditions. The acceptable degradation in performance must be specifically defined, in terms such as resistance, accuracy, etc. The acceptance criteria will conform to requirements of the NRC Guidelines for Evaluating Environmental Qualification of Class IE Electrical Equipment in Operating Reactors.

d. Evaluation of Class 1E electrical equipment

The qualification documentation is reviewed to determine whether the equipment is qualified in accordance with the acceptance criteria. In the event that use of available qualification data and supplemental analysis is not sufficient to fully qualify the equipment, that equipment or component will be identified as having "outstanding items", and it will be qualified using one of the methods described in Section 6.

5.2 Qualification Status

The environmental qualification of all equipment identified on the Master List (Appendix A) is currently under evaluation. As requested in the IE Bulletin, the status of the evaluation is presented in the form of System Component Evaluation Worksheets which are presented in Appendix C. For each component on the Master List, a worksheet is provided which contains the following information:

a. Identification of the component, including system, manufacturer, model number, plant ID number, function, required accuracy, service, and location.

b. Identification of the appropriate service conditions as described in Section 4.

c. Summary of the applicable qualification data which has been obtained and comparison of that data with the required service conditions.

d. References and sources for all data presented.

Discussion of the work accomplished since the 45-day response (Ref. 1) for the equipment inside and outside containment is given in Sections 5.2.1 and 5.2.2, respectively.

5.2.1 Equipment Inside Containment

A major portion of the qualification information for equipment inside containment was presented in the 45-day response (Ref. 1). All equipment was found to be qualified except for the outstanding items identified in Table 5-1. Subsequent to the 45-day response, vendor contact was made to determine whether the equipment was tested to the required conditions. Test results were received qualifying the Limitorque Valve Motor Operator SMB series (Type H) for radiation exposure, thus completing qualification. Qualification test data is being obtained to eliminate the remaining outstanding items. Any items that remain outstanding after the additional test data is received will be qualified by one of the methods detailed in Section 6.

5.2.2 Equipment Outside Containment

No qualification information for equipment outside containment was included in the 45-day response. Subsequent to the previous submittal, the vendor and model number for all of the Class 1E electrical equipment outside containment required to function following a HELB have been identified. The following steps have been taken to obtain qualification data for these components:

a. All of the equipment vendors have been contacted and test data requested.

b. General Electric has been contacted to provide qualification data for equipment they supplied.

c. The EPRI document summarizing the utility responses to IE Bulletin 79-01B (Ref. 3) has been reviewed to assess the qualification documentation used by other utilities. Copies of this test data have been requested from either the test facility that did the testing or the utility that referenced the report.

The initial responses indicate that much of this equipment has been type tested. The test reports that have been received have been incorporated into the System Component Evaluation Worksheets in Appendix C. As additional test data is received, it will be evaluated and any outstanding items identified. Any items that cannot be resolved using engineering analysis will be qualified by one of the methods detailed in Section 6.

STATUS OF OUTSTANDING ITEMS
FOR EQUIPMENT INSIDE CONTAINMENT

TABLE 5-1

EQUIPMENT	OUTSTANDING ITEM	STATUS
1. Limitorque Valve Motor Operator Series SMB	radiation	FIRL Report # F-C3441 received, qualifying the motor operator for radiation
2. Automatic Valve Co. Solenoid Valve Model C-4988-15	radiation aging	Test data being obtained from General Electric.
3. Automatic Valve Co. Solenoid Valve Model C-5450	aging	Test Data being obtained from General Electric.
4. General Electric Electrical Penetration Models NSO-2,3,4	aging	Test data being obtained from General Electric

6.0 RESOLUTION OF OUTSTANDING ITEMS - QUALIFICATION PLAN

Any equipment identified as having outstanding items will be qualified using the plan and methods described in this section. The plan has been developed in accordance with the methods, principles, and guidelines set forth in IEEE Standard 323 and ancillary standards (IEEE Stds. 334-71, 382-72, and 383-74). Environmental qualification guidelines discussed in IE Bulletin 79-01B have also been incorporated into the qualification plan.

There are several methods discussed in IEEE Standard 323 to environmentally qualify electrical components. The four qualification procedures that will be used for Monticello are:

a. Type testing
b. Operational Experience
c. Modification, Relocation, or Replacement.
d. On-going Qualification

A combination of two or more of these methods will often be the best qualification procedure for an electrical component.

As stated in IE Bulletin No. 79-01B, engineering analysis alone is not a satisfactory method for environmental qualification. However, analysis may be used as a supplement to each of the qualification methods listed above. Areas where this method is especially useful include thermal aging and beta radiation shielding.

6.1 Applicability of Qualification Methods

The applicability of a specific qualification method depends on a number of factors including location of the component, size, complexity, design specifications, and design life. Also, certain environmental conditions are more easily tested by a specific procedure than others. Specific conditions that are favorable to the use of each qualification method are listed below:

a. Type Testing is generally used when:

- A large number of the same or similar components can be qualified with one test.

- The component is relatively inaccessable in normal operation.

- Elevated temperature and pressure are potentially detrimental to the component's functionality.

b. Operational Experience is generally used when:

- The component has been used for an extended period of time in a similar environment.

- As a method for thermal aging and radiation qualification.

c. Modification, Relocation, or Replacement

. Modification is generally used when:

- A minor change will make the component equal to a qualified model.

. Relocation is generally used when:

- Moving the component is feasible.

- Moving the component will qualify it or make another qualification method more practical.

- To avoid submergence.

. Replacement is generally used when:

- The component has failed the functional requirements during a qualification procedure.

- There are a small number of inaccessable components that are not economically feasible to type test.

d. On-Going Qualification is generally used when:

- The component is easily accessable.

- As a test for thermal and radiation aging where the failure is slow and measurable.

- For large, complex equipment that would be difficult to type test.

- Test data on susceptable parts of a component are available.

The following documentation will be considered in selecting the best qualification method for each component:

a. Design Specifications

b. Design Standards Used - such as NEMA and Underwriters Laboratory

c. Bill of Material or Materials Lists

d. Maintenance and Service Manuals

e. Partial Type Tests

f. Similar Uses - other uses where the component is exposed to harsh environmental conditions

g. Similarity to qualified models

6.2 TYPE TESTING

The type test is designed to show the safety-related electrical equipment will perform its intended function during the normal service life and following a LOCA or HELB. A detailed procedure for this qualification method is presented in IEEE Standard 323-74. This procedure will be followed very closely when the specific test plans are written. Although the type-testing procedure will vary somewhat for the different components, each procedure will contain the following:

a. Identification of the components the type test covers.

b. Identification of the normal and accident environments.

c. The components' mounting and connections in the plant, including accounting for penetration of moisture through stranded cable.

d. Determination of the functional requirements of the component and qualification criteria.

e. Required test equipment.

f. A test sequence to simulate the actual environmental conditions the component is exposed to (see IEEE Std. 323-74, 6.3.2).

g. Traceable documentation.

h. Determination of component-specific conditions or failure mechanisms, and incorporation of these into the testing.

Engineering analysis will be used in conjunction with the type testing. This is needed to determine an equivalent aging time at an elevated temperature (using the Arrhenius model) and to determine a test radiation level (accounting for the shielding of beta radiation). Analysis is also very useful when prior qualification test results are being used. In some cases, where the test conditions or sequence are not in exact accordance with those required, an analysis may be performed to show that the test was adequate.

6.3 OPERATIONAL EXPERIENCE

Use of operating experience in equipment qualification is described in IEEE Std. 323-74, as follows:

> "The electric equipment type shall be considered to be qualified by demonstrating that the recorded operating environment equals or exceeds the design environment in severity, and that the performance of the in service equipment equaled or exceeded the specified user requirements. The period of time for which the above requirements can be shown to be met with reasonable margin shall be the qualified life."

This qualification method will be used to qualify a component in cases where the following information is available for a similar component exposed to a severe environment.

a. Identify the past history of performance of the component. This includes maintenance checks, inspections, and failures.

b. Identify the past operating environment.

c. Compare the past histories (performance and service conditions) with the design specifications to determine whether the in-service component is actually representative of the model to be qualified.

d. Identify and compare the difference between the in-service component and the one being qualified.

6.4 MODIFICATION, RELOCATION, OR REPLACEMENT

6.4.1 Modification

In some cases, minor modifications can be made to equipment to bring it up to qualification standards. When these cases are identified, the modifications will be performed with assistance from the vendor.

As an example, some components might be modified to qualify for a more severe environment by replacing the sealing materials (gaskets and boots) with a material less susceptible to degradation in a severe environment.

6.4.2 Relocation

Certain components, such as terminal boards and pressure transmitters, are relatively easy to move, so this qualification method will be considered. The main use of relocation would be to move a component above the flood level, but moving the component to another room with a less severe environment would be an attractive alternative in some cases.

6.4.3 Replacement

In cases where other qualification procedures are not practical because of cost or other considerations, the equipment will be replaced. In addition, equipment for which function is not completely demonstrated by qualification testing or analysis will be replaced.

6.5 ON-GOING QUALIFICATION

On-going qualification will be used mainly as a supplement to other qualification procedures. Some electrical equipment may have a qualified life less than the installed life of the component. In this case, on-going qualification may be considered. This qualification method is especially applicable to equipment outside the primary containment because its accessibility makes frequent inspections relatively easy.

7.0 SUMMARY

This document summarizes the evaluation of environmental qualification of Class 1E electrical equipment performed in response to IE Bulletin No. 79-01B. The 45-day response (Ref. 1) and this 90-day response provide documentation of the Environmental Qualification Program that is being undertaken by Northern States Power Company. The program ensures that all safety-related Class 1E electrical equipment is capable of performing its safety-related function during postulated accident conditions.

The present status of the evaluation is as follows:

- The safety-related plant systems have been identified.
- The Class 1E electrical equipment in these systems has been identified.
- Information sources have been contacted in order to obtain qualification documentation.
- The components in containment have been environmentally qualified except for three outstanding items which are in the process of being resolved.
- Type-test reports have been received for a limited number of components outside containment. This data has been evaluated for compliance with the required service conditions.
- Evaluation plans have been developed as follows:

  1. Environmental Analysis Plan - to completely define the environment for all required electrical equipment.
  2. Qualification Plan - to complete the environmental qualification of all required electrical equipment.

A subsequent submittal to the NRC is anticipated. This submittal will provide the following information:

- A summary of the evaluation of all equipment for which qualification documentation was obtained.
- A detailed qualification plan for each piece of electrical equipment which is not fully qualified at that time.
- Schedule for implementation of the detailed qualification plan.

8.0 REFERENCES

1) Northern States Power Company; "Monticello Nuclear Generating Plant - Response to IEB 79-01B"; Docket No. 50-263, License No. DPR-22; March 10, 1980.

2) Bechtel Power Corporation; "Monticello Nuclear Generating Plant Unit 1, Northern States Power Company - Pipe Break Outside Containment Results"; Job 10040; Table 1; August, 1973.

3) EPRI; "EPRI Equipment Qualification Program - Responses to NRC IE Bulletin 79-01 on Equipment Qualification"; March 6, 1980.

4) NRC Office of Inspection and Enforcement; "Environmental Qualification of Class 1E Equipment"; Bulletin No. 79-01B; January 14, 1980.

5) IEEE Std. 323-1974; "IEEE Standard for Qualifying Class 1E Equipment for Nuclear Power Generating Stations"; 1974.

6) Northern States Power Company; "Monticello Nuclear Generating Plant-Final Safety Analysis Report".

7) Idaho National Engineering Laboratory; "RELAP4/MOD5, A Computer Program for Transient Thermal-Hydraulic Analysis of Nuclear Reactors and Related Systems, User's Manual, Volume I, II, and III"; ANCR-NUREG-1335; September, 1976.

8) Oak Ridge National Laboratory; "ORGEN-79, Isotope Generation and Depletion Code - Matrix Exponential Method"; CCC-217; September 27, 1979.

9) Battelle Northwest Laboratory; "ISOSHLD - A Computer Code for General Purpose Isotope Shielding Analysis"; BNWL-236; June 1966.

APPENDIX A

COMPONENT MASTER LIST AND ENVIRONMENTS

The tables in Appendix A contain the following information:

1. Identification of all Engineered Safety Feature Systems.

2. Identification of all Class 1E electrical equipment in these systems.
   - Plant identification number
   - Component function
   - Manufacturer and model number

3. Accident environment of identified safety related components.
   - Containment - The component is inside containment and a complete accident environment was defined from the FSAR. See Profiles B.1 and B.2 for the accident profiles.
   - A to I - The component is outside containment and the letter referes to a specific room in Table B.1. The maximum temperature and pressure profiles for these rooms, determined from Reference 2, are presented in Profiles B.3 through B.8.
   - Isolated - The component is in the Stand-by Gas Treatment Room which has no openings to the rest of the Reactor Building except through air-lock doors. There are no high energy lines running through this room, so it is isolated from the elevated temperature and pressure due to a HELB.

SYSTEM: Main Steam				
PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 2373	Valve Motor Operator	Limitorque	SMB-000	Containment
MO 2374	Valve Motor Operator	Limitorque	SMB-000	A
SV 2-71 (A-H)	Solenoid Valve	Automatic Valve Co.	C-5450	Containment
SV 2-80 (A-D)	Solenoid Valve	Automatic Valve Co.	C-4988-15	Containment
SV-2-86 (A-D)	Solenoid Valve	Automatic Valve Co.	C-4988-15	Containment
TS 2-121 (A-D)	Temperature Switch	Fenwal	17002-40	A
TS 2-122 (A-D)	Temperature Switch	Fenwal	17002-40	A
TS 2-123 (A-D)	Temperature Switch	Fenwal	17002-40	A
TS 2-124 (A-D)	Temperature Switch	Fenwal	17002-40	A
dPIS 2-116 (A-D)	Differential Pressure Indicating Switch	Barton	278	H
dPIS 2-117 (A-D)	Differential Pressure Indicating Switch	Barton	278	H
dPIS 2-118 (A-D)	Differential Pressure Indicating Switch	Barton	278	H
dPIS 2-119 (A-D)	Differential Pressure Indicating Switch	Barton	278	H

Table A.1

SYSTEM: Nuclear Boiler-Vessel Instrumentation				
ANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
PS 2-3-49 (A)	Pressure Switch	Barksdale	B2T-M12SS	H
PS 2-3-49 (B)	Pressure Switch	Barksdale	B2T-A12SS	H
PS 2-3-50 (B)	Pressure Switch	Barksdale	B2T-A12SS	H
PS 2-3-50 (A)	Pressure Switch	Barksdale	B2T-M12SS	H
PS 2-3-51 (A-D)	Pressure Switch	Barksdale	B2T-M12SS	H
PS 2-3-52 (A)	Pressure Switch	Barksdale	B2T-M12SS	H
PS 2-3-52 (B)	Pressure Switch	Barton	288	H
PS 2-3-53 (A, B)	Pressure Switch	Barksdale	B2T-M12SS	H
PS 2-3-55 (A-D)	Pressure Switch	Barksdale	B2T-A12SS	H
LIS 2-3-57 (A, B)	Level Indicating Switch	Yarway	4418C	H
LIS 2-3-58 (A, B)	Level Indicating Switch	Yarway	4418C	H
LIS 2-3-72 (A-D)	Level Indicating Switch	Yarway	4418C	H
LITS 2-3-73 (A, B)	Level Indicating Switch	Yarway	4418EC	H
LITS 2-3-59 (A, B)	Level Indicating Transmitter-Switch	Yarway	4418CE	H
LT 2-3-61	Level Transmitter	GE	553	H
LT 6-52 (A, B)	Level Transmitter	GE	555	H
6-53 (A, B)	Pressure Transmitter	GE	551	H

Table A.2

SYSTEM: Reactor Recirculation

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 2-53 (A, B)	Valve Motor Operator	Limitorque	SMB	Containment
MO 2-54 (A, B)	Valve Motor Operator	Limitorque	SMB	Containment
SV 2790	Solenoid Valve	ASCO	NP 8321A1E	Containment
SV 2791	Solenoid Valve	ASCO	THT831723	E
PS 2-128 (A, B)	Pressure Switch	Static-O-Ring	6N-AA3	H
dPIS 2-129 (A-D)	Differential Pressure Indicating Switch	Barton	288	H
dPIS 2-136 (A, B)	Differential Pressure Indicating Switch	Barton	288	H
dPIS 2-137 (A, B)	Differential Pressure Indicating Switch	Barton	288	H
dPIS 2-138 (A, B)	Differential Pressure Indicating Switch	Barton	288	H
dPIS 2-139 (A, B)	Differential Pressure Indicating Switch	Barton	288	H

Table A.3

SYSTEM: Control Rod Drive

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
SV 3-140 (A, B)	Solenoid Valve	ASCO	WPLBX 831636	H
SV 3-31 (A, B)	Solenoid Valve	ASCO	HVA-90-441-1A	H
SV 3-13-117	Solenoid Valve	ASCO	HVA-90-405	H
SV 3-13-118	Solenoid Valve	ASCO	HVA-90-405	H

Table A.4

SYSTEM: Residual Heat Removal				
ANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 1989	Valve Motor Operator	Rotork	30A S/N S2221	I
MO 2002	Valve Motor Operator	Rotork	150A S/N S2221	I
MO 2003	Valve Motor Operator	Rotork	150A S/N S2222	I
MO 2006	Valve Motor Operator	Rotork	35A S/N S2207	C
MO 2007	Valve Motor Operator	Rotork	35A S/N S2208	H
MO 2008	Valve Motor Operator	Rotork	70A S/N S2219	C
MO 2009	Valve Motor Operator	Rotork	70A S/N S2220	C
MO 2010	Valve Motor Operator	Rotork	14AMK11 S/N S2205	C
MO 2011	Valve Motor Operator	Rotork	14AMK11 S/N S2205	C
MO 2012	Valve Motor Operator	Limitorque	SMB-5	H
MO 2013	Valve Motor Operator	Limitorque	SMB-5	H
MO 2014	Valve Motor Operator	Limitorque	SMB-2	H
MO 2015	Valve Motor Operator	Limitorque	SMB-2	H
MO 2020	Valve Motor Operator	Rotork	30A S/N S2215	H
MO 2021	Valve Motor Operator	Rotork	30A S/N S2212	H
MO 2022	Valve Motor Operator	Rotork	30A S/N S2213	H
2023	Valve Motor Operator	Rotork	30A S/N S2214	H

Table A.5

SYSTEM: Residual Heat Removal (cont'd.)				
ANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 2026	Valve Motor Operator	Limitorque	SMB-00	H
MO 2027	Valve Motor Operator	Limitorque	SMB-00	Containment
MO 2029	Valve Motor Operator	Limitorque	SMB-00	Containment
MO 2030	Valve Motor Operator	Limitorque	SMB-4	H
MO 2032	Valve Motor Operator	Rotork	12A S/N S2204	C
MO 2407	Valve Motor Operator	Rotork	12A S/N S2315	C
SV 1728	Solenoid Valve	ASCO	G:T-HP-830081RU	I
SV 1729	Solenoid Valve	ASCO	G:T-HP-830081RU	I
SV 1994	Solenoid Valve	ASCO	A:T-HT-831723	I
SV 1995	Solenoid Valve	ASCO	A:T-HT-831723	I
SV 1996	Solenoid Valve	ASCO	A:T-HT-831723	I
SV 1997	Solenoid Valve	ASCO	A:T-HT-831723	I
E/P 1728	Electric Pneumatic Transducer	Fisher	546	I
E/P 1729	Electric Pneumatic Transducer	Fisher	546	I
dPT 10-91 (A, B)	Differential Pressure Transmitter	Barton	296	I
PS 7192	Pressure Switch	Square D	GHG551	H
0-105 (E-H)	Pressure Switch	Static-O-Ring	5N AA3X	I

Table A.6

SYSTEM: Residual Heat Removal (Cont'd.)				
PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
PS 10-119 (A-D)	Pressure Switch	Static-O-Ring	12N AA4	H
FS 10-121 (A-D)	Flow Switch	Peeco	HP-F	I
P-202 (A-D)	Pump Motor	GE	5K6329XC4A	I
PS 7193	Pressure Switch	Square D	GHG551	H
MO 1986	Valve Motor Operator	Rotork	30A S/N S2186	I
MO 1987	Valve Motor Operator	Rotork	30A S/N S2185	I
MO 1988	Valve Motor Operator	Rotork	30A S/N S2209	I
PS 10-100 (A-D)	Pressure Switch	Static-O-Ring	12N AA4	H
PS 10-101 (A-D)	Pressure Switch	Static-O-Ring	12N AA2	H
FT 10-109 (A, B)	Flow Transmitter	GE	553	I
FT 10-111 (A) (B)	Flow Transmitter	GE	553	I H
K-10 (A, B)	Aux. Compressor Motor	GE	5K145A1246	H
K-10 (A, B)	Aux. Compressor Motor Starter	GE	CR106	H
PS 10-105 (A-D)	Pressure Switch	Mercoid	DAW-23-156	H
K-10 (A, B)	Aux. Comp Line Sw	GE	THN 3361, mod 2	H
N3347	Aux. Comp Disconnect	GE	THN 3361, mod 2	H
347	Aux. Comp Disconnect	GE	THN 3361, mod 2	H

Table A.7

SYSTEM: Core Spray				
PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 1749	Valve Motor Operator	Rotork	30A	C
MO 1750	Valve Motor Operator	Rotork	30A	C
MO 1751	Valve Motor Operator	Limitorque	SMB-2	H
MO 1752	Valve Motor Operator	Limitorque	SMB-2	F
MO 1753	Valve Motor Operator	Limitorque	SMB-2	H
MO 1754	Valve Motor Operator	Limitorque	SMB-2	H
PS 14-44 (A-D)	Pressure Switch	Barksdale	B2T-M12SS	I
P-208 (A, B)	Pump Motor	GE	5K6338XC39	I
FT 14-40 (A, B)	Flow Transmitter	GE	553	I

Table A.8

SYSTEM: High Pressure Coolant Injection

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 2034	Valve Motor Operator	Limitorque	SMB-0	Containment
MO 2035	Valve Motor Operator	Limitorque	SMB-0	A
MO 2036	Valve Motor Operator	Limitorque	SMB-1	D
MO 2061	Valve Motor Operator	Rotork	16AMK11	D
MO 2062	Valve Motor Operator	Rotork	16AMK11	D
MO 2063	Valve Motor Operator	Rotork	16AMK11	D
MO 2067	Valve Motor Operator	Limitorque	SMB-4	D
2068	Valve Motor Operator	Limitorque	SMB-4	A
MO 2071	Valve Motor Operator	Limitorque	SMB-4	D
PS 23-68 (A-D)	Pressure Switch	Barksdale	B2T-M12SS	H
PS 23-97 (A, B)	Pressure Switch	Mercoid	DA-7004-804	D
PS 23-84	Pressure Switch	Mercoid	DAW-443-4132 -R26E	D
dPIS 23-76 (A, B)	Differential Pressure Indicating Switch	Barton	288A	H
dPIS 23-77 (A, B)	Differential Pressure Indicating Switch	Barton	288A	H
TS 23-101 (A-D)	Temperature Switch	Fenwal	17023-6	D
TS 23-102 (A-D)	Temperature Switch	Fenwal	17023-6	D
23-103 (A) (B, C, D)	Temperature Switch	Fenwal	17023-6	C D

Table A.9

SYSTEM: High Pressure Coolant Injection (cont'd)				
ANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
TS 23-104 (A) (B, C, D)	Temperature Switch	Fenwal	17023-6	C D
P-217	Motor	Baldor	669	D
----	EGM	Woodward Govener	8270-811	D
----	EGR	Woodward Govener	A 8250-133	D
SV 2065	Solenoid Valve	ASCO	D:T-HT-83212	D
FS 23-78	Flow Switch	Barton	289	D
FT 23-82	Flow Transmitter	GE	553	D
23-91 (A, B)	Level Switch	Magnetrol	249-C	C
LS 23-74	Level Switch	Robert Shaw	SL-412-A1	H
LS 23-75	Level Switch	Robert Shaw	SL-412-A1	H
----	Limit Switch	Namco	EA170-34101	D
----	Magnetic Pick-up	Woodward Govener	1680-622	D
----	Ramp Generator	Woodward Govener	8271-083	D

Table A.10

SYSTEM: Reactor Core Isolation Cooling				
ANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 2075	Valve Motor Operator	Limitorque	SMB-000	Containment
MO 2076	Valve Motor Operator	Limitorque	SMB-000	A
MO 2078	Valve Motor Operator	Limitorque	SMB-00	G
TS 13-79 (A-D)	Temperature Switch	Fenwal	17023-6	
TS 13-80 (A-D)	Temperature Switch	Fenwal	17023-6	No. - A Environment C
TS 13-81 (A-D)	Temperature Switch	Fenwal	17023-6	No. - B, C, D Environment G
TS 13-82 (A-D)	Temperature Switch	Fenwal	17023-6	
dPIS 13-83	Differential Pressure Indicating Switch	Barton	288	H
dPIS 13-84	Differential Pressure Indicating Switch	Barton	288	H
PS 13-87 (A-D)	Pressure Switch	Meltron	372-65549A	H
PS 13-72 (A, B)	Pressure Switch	Barksdale	D2H-M150SS	G
P210	Pump Motor	GE	5CD14C10A 900000	G
PT 13-68	Pressure Transmitter	GE	551	G
PT 13-70	Pressure Transmitter	GE	551	G
LT 1358	Level Transmitter	GE	555	H
LT 1359	Level Transmitter	GE	555	H
2100	Valve Motor Operator	Rotork	12A/EC	G

Table A.11

SYSTEM: Reactor Core Isolation Cooling (Cont'd)				
ANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 2101	Valve Motor Operator	Rotork	12A/EC	G
MO 2102	Valve Motor Operator	Rotork	12A/EC	G
MO 2106	Valve Motor Operator	Limitorque	SMB-00	G
MO 2107	Valve Motor Operator	Limitorque	SMB-00	A
MO 2110	Valve Motor Operator	Limitorque	SMB-2	C
MO 3502	Valve Motor Operator	Limitorque	SMB-0	C
SV 2104	Solenoid Valve	ASCO	D:T-HT-83212	G
FS 13-57	Flow Switch	Barton	289	G
FT 13-58	Flow Transmitter	GE	553	G
PS 13-67	Pressure Switch	Mercoid	DAW-443-4132-R26E	G
PT 13-65	Pressure Transmitter	GE	551	G
PT 13-60	Pressure Transmitter	GE	551	G
P 211	Pump Motor	Continental Electric	D225X	G
----	Magnetic Pick-Up	Woodward Govener	1680-622	G
----	EGM	Woodward Govener	8270-849	G
----	EGR	Woodward Govener	A8250-133	G
--	Ramp Generator	Woodward Govener	8271-083	G

Table A.12

SYSTEM: Primary Containment and Atmosphere Control				
PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
SV 2377	Solenoid Valve	ASCO	8300C64U	C
SV 2378	Solenoid Valve	ASCO	8300C64U	C
SV 2379	Solenoid Valve	ASCO	8262A212	C
SV 2380	Solenoid Valve	ASCO	8262A212	C
SV 2381	Solenoid Valve	ASCO	8300C64U	C
SV 2383	Solenoid Valve	ASCO	8300C64U	C
SV 2384	Solenoid Valve	ASCO	T-HT-8317A23	C
SV 2385	Solenoid Valve	ASCO	T-HT-831723	H
SV 2386	Solenoid Valve	ASCO	8300C64U	H
SV 2387	Solenoid Valve	ASCO	8300C64U	H
SV 2896	Solenoid Valve	ASCO	8300C64U	C
dPS 2573	Differential Pressure Switch	Barton	289A	H
dPS 2572	Differential Pressure Switch	Barton	289A	H
SV 7440	Solenoid Valve	ASCO	T-HT-8317B23	C

Table A.13

SYSTEM: Standby Gas Treatment				
PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
SV 2944	Solenoid Valve	ASCO	A;T-HT-831723	Isolated
SV 2945	Solenoid Valve	ASCO	A:T-HT-831723	Isolated
SV 2978	Solenoid Valve	ASCO	A:T-HT-831723	Isolated
SV 2979	Solenoid Valve	ASCO	A:T-HT-831723	Isolated
SV 2982 (A, B)	Solenoid Valve	ASCO	A:T-HT 831723	Isolated
PS 3462	Pressure Switch	Furnac	---	Isolated
FT 2942	Flow Transmitter	Leeds & Northrup	1912-2-10-0000	Isolated
EF-17 (A, B)	Fan Motor	GE	254-T-ODP	Isolated
FT 2943	Flow Transmitter	Leeds & Northrup	1912-2-10-0000	Isolated
FS 2950	Flow Switch	McDonnell & Miller	AF15	Isolated
FS 2951	Flow Switch	McDonnell & Miller	AF15	Isolated
TS 3368	Temperature Switch	Chromalox	AR 2529	Isolated
TS 3369	Temperature Switch	Chromalox	AR 2529	Isolated
K-11	Aux. Compressor Motor	GE	5K43KG2802	Isolated
E/P 2942	Electric Pneumatic Transducer	Leeds & Northrup	10970-1	Isolated
E/P 2943	Electric Pneumatic Transducer	Leeds & Northrup	10970-1	Isolated
1 (A-B)	Contactor	Cutler Hammer	G-10-2	Isolated

Table A.14

SYSTEM: Standby Gas Treatment (Cont'd)

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
LC-2 (A-B)	Fused Disconnect	Cutler Hammer	4105H311H	Isolated
E-34 (A-B)	Thermostat	Honeywell	T451A	Isolated
E-34 (A-B)	Unit Heater	ILG Industries	H7133	Isolated
K-11	Aux. Compressor Motor Starter	Furnac	14BA32BC	Isolated
K-11	Aux. Compressor Line Switch	GE	THN 3361 & 2	Isolated
T1	Control XFMR	Heavy Duty Electrical	SZO	Isolated
Allen-Bradley Bulletin 1492-CD3	Terminal Board	Allen-Bradley	1492-CD3	Isolated
General Electric -57275	Wire	GE	SI-57275	Isolated

Table A.15

SYSTEM: Reactor Building Cooling Water

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 1426	Valve Motor Operator	Rotork	14AMK11	C

Table A.16

SYSTEM: Reactor Water Cleanup

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MO 2397	Valve Motor Operator	Limitorque	SMB-00	Containment
MO 2398	Valve Motor Operator	Limitorque	SMB-00	H
MO 2399	Valve Motor Operator	Rotork	30A	H

Table A.17

SYSTEM: Reactor Building Instrument Air

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
SV 1478	Solenoid Valve	ASCO	A:THT 831723	A
SV 7956	Solenoid Valve	ASCO	THT 8317B23	C

Table A.18

SYSTEM: Automatic Depressurization

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
SV 2-71 (A-C)	Solenoid Valve	Automatic Valve Co.	C-5450	Containment

Table A.19

SYSTEM: Reactor Protection

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
PS 5-14 (A-D)	Pressure Switch	Barksdale	B2T-A12SS	B
PS 5-12 (A-D)	Pressure Switch	Static-O-Ring	12N-K4	H

Table A.20

SYSTEM: Radwaste

ANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
SV 2541 (A, B)	Solenoid Valve	ASCO	A:THT 831723	C
SV 2561 (A, B)	Solenoid Valve	ASCO	A:THT 831723	C

Table A.21

SYSTEM: Primary Containment Nitrogen Control				
PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
SV 3267	Solenoid Valve	ASCO	T-HT-831723	C
SV 3268	Solenoid Valve	ASCO	T-HT-831723	C
SV 3269A	Solenoid Valve	ASCO	T-HT-831723	H
SV 3305	Solenoid Valve	ASCO	T-HT-831723	H
SV 3306	Solenoid Valve	ASCO	T-HT-831723	H
SV 3307	Solenoid Valve	ASCO	T-HT-831723	H
SV 3308	Solenoid Valve	ASCO	T-HT-831723	H
SV 3309	Solenoid Valve	ASCO	T-HT-831723	H
SV 3310	Solenoid Valve	ASCO	T-HT-831723	H
SV 3311	Solenoid Valve	ASCO	T-HT-831723	H
SV 3312	Solenoid Valve	ASCO	T-HT-831723	H
SV 3313	Solenoid Valve	ASCO	T-HT-831723	H
SV 3314	Solenoid Valve	ASCO	T-HT-831723	H

Table A.22

SYSTEM: Containment

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
LT 2996	Level Transmitter	Rosemount	1151DP 4B22MB	C
PT 2994B	Pressure Transmitter	GE	552	C
PT 7348	Pressure Transmitter	GE	551	H
TE 2995 (F, G)	Thermocouple	Thermo-Electric	CE S16-2-516-T	C

Table A.23

SYSTEM: Components				
ANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
----	Electrical Cable	GE	SI-58007	H
----	Electrical Cable	GE	SI-58136	H
----	Electrical Cable	GE	SI-58081	H
----	Electrical Cable	GE	SI-58109	Containment
----	Electrical Cable	Rockbestos	Firewall III	Containment
----	Instrument Cable	Samuel Moore	# 1802, 1852, 1862	H
----	Electrical Cable	GE	SI-58042	H
Y-105 (A, C, D)	Electrical Penetration	GE	NSO-2, NSO-3, NSO-4	Containment
----	Field Splice	Raychem	WCSF-N	Containment
----	Terminal Board	GE	CR151D3	H
----	Limit Switch	NAMCO	EA08021100	C
----	Limit Switch	NAMCO	D2400X ST	C
----	Limit Switch	NAMCO	EA 17014100	C
----	Limit Switch	NAMCO	D 1200G	I
----	Limit Switch	NAMCO	SL5-C3L	C
----	Limit Switch	NAMCO	SL3-B2W	C
--	Limit Switch	NAMCO	EA-740-50100	Containment

Table A.24

SYSTEM: Components (cont'd)

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
----	Limit Switch	NAMCO	EA-740-8000	Containment
----	Limit Switch	Micro Switch	BZE6-2RN	C
----	Limit Switch	Micro Switch	BZE6-2RQ2	I
----	Banana Plug	E. F. Johnson	108-0300-01	I

Table A.25

SYSTEM: 250VDC

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
D 311	Motor Control Center	GE	IC-7700	G
D 312	Motor Control Center	GE	IC-7700	D

Table A.26

SYSTEM: 480 VAC Station Auxiliary

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
MCC 142	Motor Control Center	GE	DA-7700	B
MCC 143 (A, B)	Motor Control Center	GE	DA-7700	B

Table A.27

SYSTEM: Heating and Ventilating

PLANT IDENTIFICATION NUMBER	COMPONENT	MANUFACTURER	MODEL	ENVIRONMENT
V-AC-4	Fan Motor	U.S. Motors	S/N 4152941	I
V-AC-5	Fan Motor	U.S. Motors	S/N 4152940	I
V-AC-6	Fan Motor	U.S. Motors	F-1088-01-268	G
V-AC-8 (A, B)	Fan Motor	U.S. Motors	F-1323-02-268	D

Table A.28

APPENDIX B

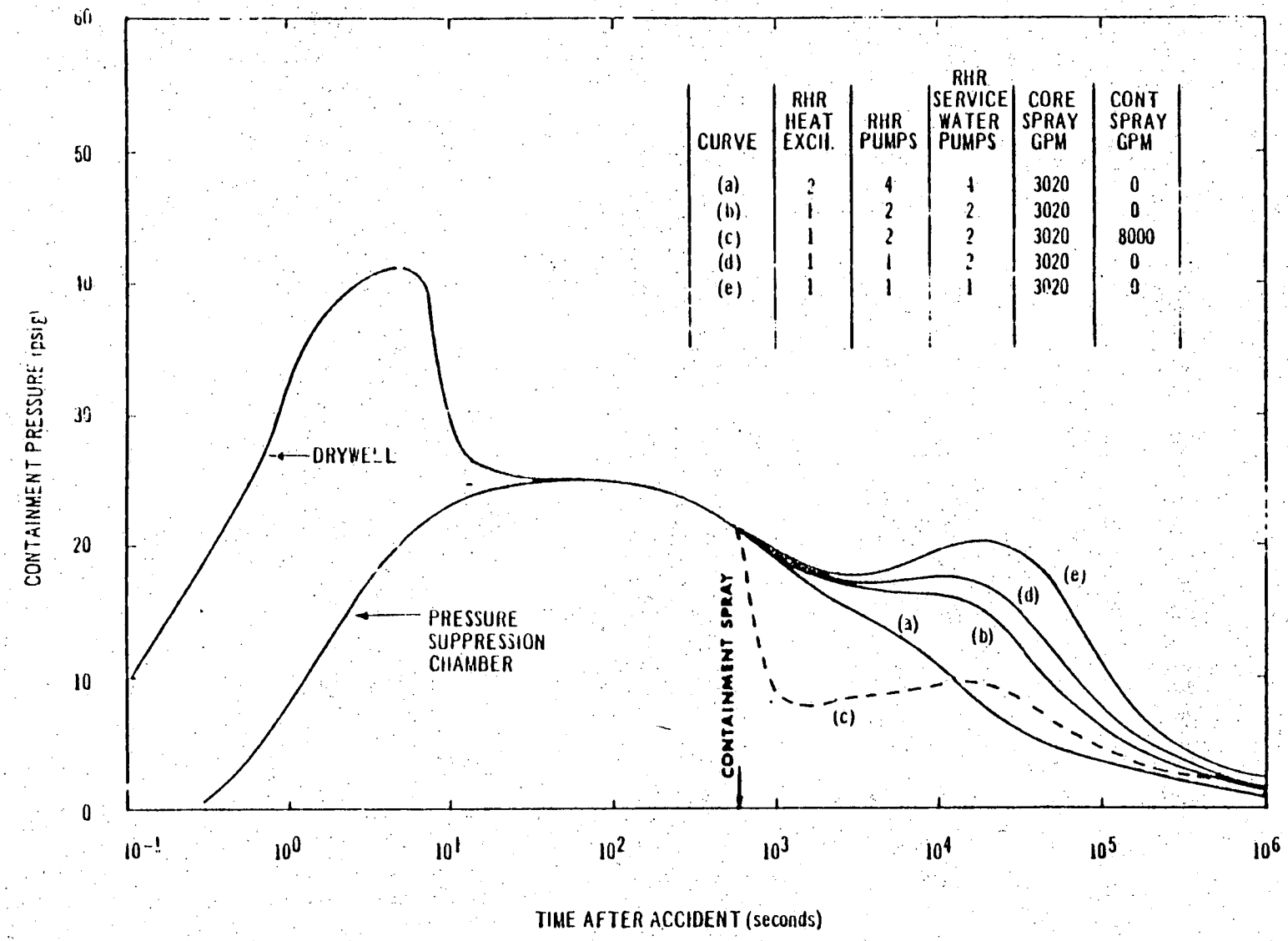
TEMPERATURE AND PRESSURE PROFILES

The table and figures in Appendix B contain the following information:

1. Profiles B.1 and B.2 - Environmental profiles for accident conditions inside containment determined from the FSAR. The equipment exposed to each of these conditions is presented in Appendix A.

2. Table B.1 - Maximum temperature and pressure for rooms outside containment. The symbols (A-I) identify the environment for each piece of equipment in Appendix A.

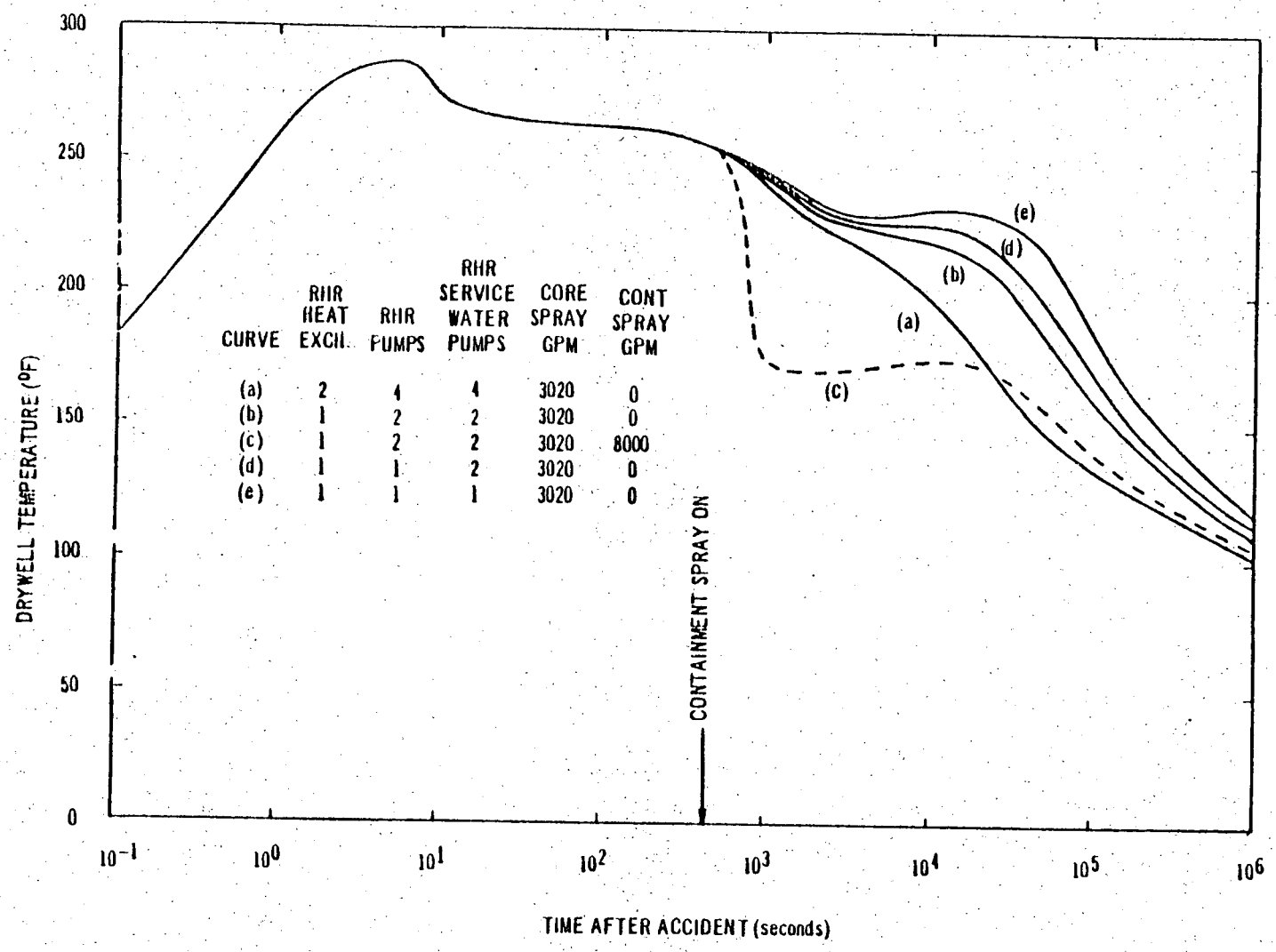
3. Profiles B.3 through B.11 - Temperature and pressure profiles for the environments presented in Table B.1. These profiles, as well as the information in Table B.1, were determined from Reference 2.



CURVE	RHR HEAT EXCH.	RHR PUMPS	RHR SERVICE WATER PUMPS	CORE SPRAY GPM	CONT SPRAY GPM
(a)	2	4	4	3020	0
(b)	1	2	2	3020	0
(c)	1	2	2	3020	8000
(d)	1	1	2	3020	0
(e)	1	1	1	3020	0

PROFILE B.1 CONTAINMENT PRESSURE RESPONSE

(FSAR Figure 5-2-14)



PROFILE B.2 DRYWELL TEMPERATURE RESPONSE
(FSAR Figure 5-2-15)

ENVIRONMENTAL CONDITIONS

OUTSIDE CONTAINMENT

Symbol	T_{max} (°F)	Time of T_{max} (sec)	P_{max} (psia)	Time of P_{max} (sec)	Rooms
A	298	2.0	26.9	4.98	Main steam tunnel
B	216	12.3	16.1	5.27	Turbine building
C	350	9.7	17.3	4.02	Torus compartment
D	350	5.0	15.6	0.45	HPCI pump room
E	212	6.0	14.9	0.09	RWCU pump room
F	213	5.0	15.3	0.22	RWCU heat exchanger room
G (1)	350	----	----	----	RCIC room
H (2)	213	----	----	----	Open space in EL. 935'-0" and 962'-6" where RWCU pipe lines pass through
I (3)	350	9.7	17.3	4.02	RHR rooms
Isolated (4)	---	----	----	----	Standby gas treatment room

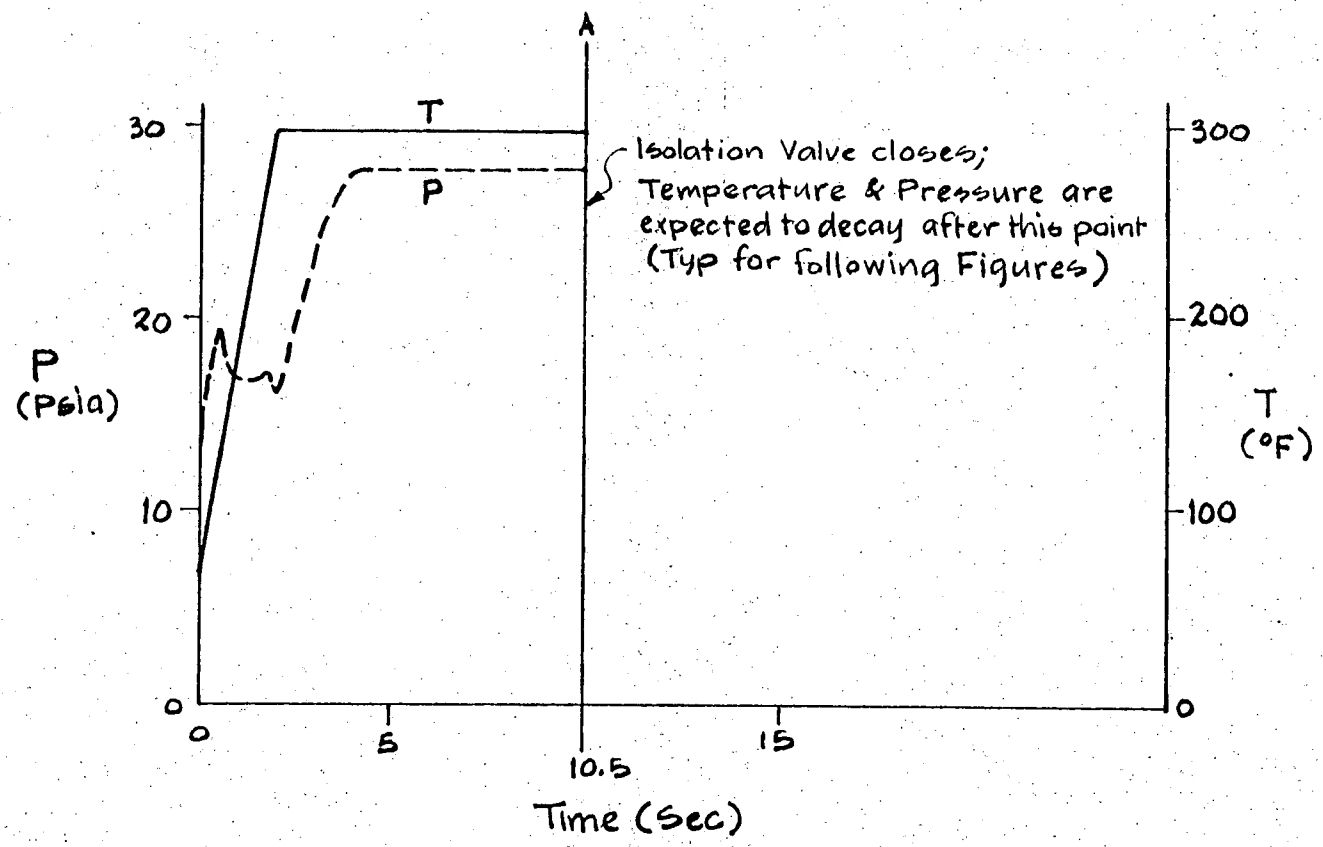
NOTE: (1) Temperature was not mentioned in the Bechtel report and, therefore, was deduced from HPCI room results. For equipment qualification purposes, Condition "D" is to be used.

(2) RWCU line runs through EL. 935'-0" which is connected upstairs through doorways and stairwell; the environmental conditions for open spaces in EL. 935'-0", EL. 962'-6" and upper floors are conservatively assumed to be the same as RWCU room (Condition F).

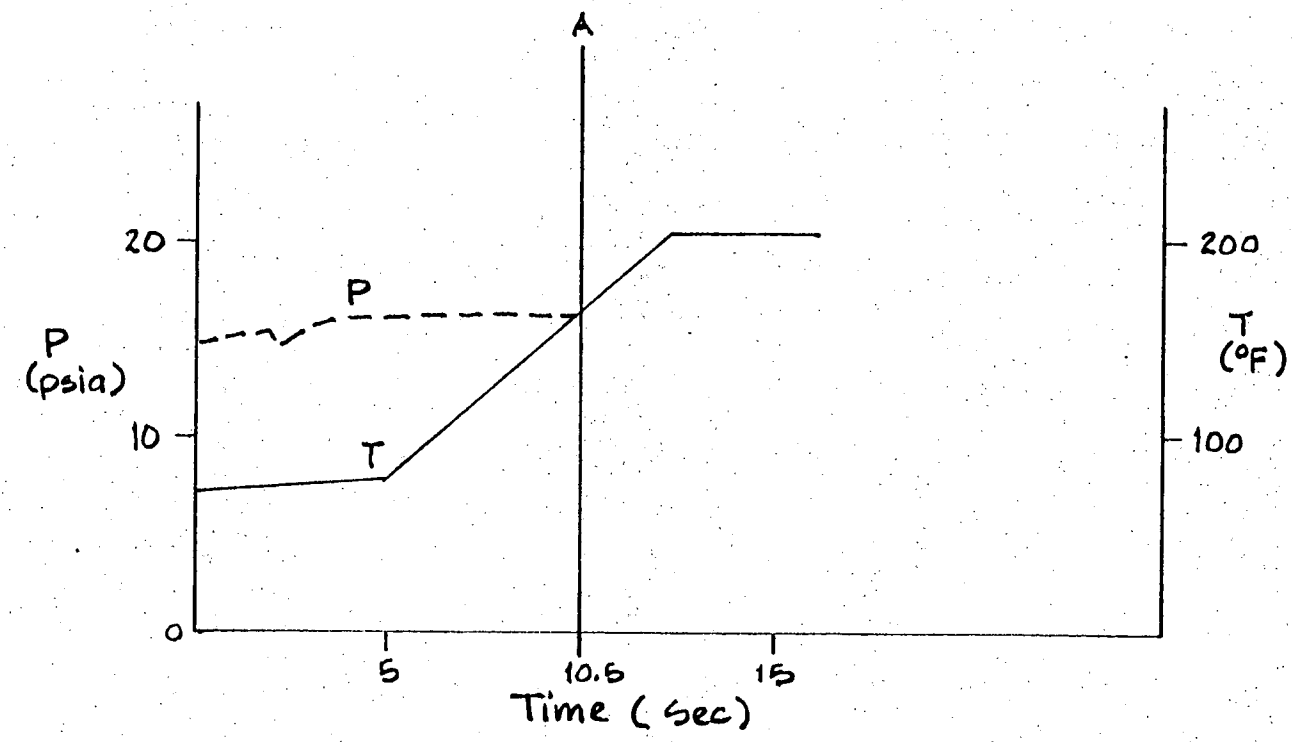
(3) Assumed to be same as torus compartment (Condition C).

(4) The standby gas treatment room has no opening to the rest of the Reactor Building except through air-lock doors. There are no high energy lines running through this room, so it is isolated from the elevated temperature and pressure due to a HELB.

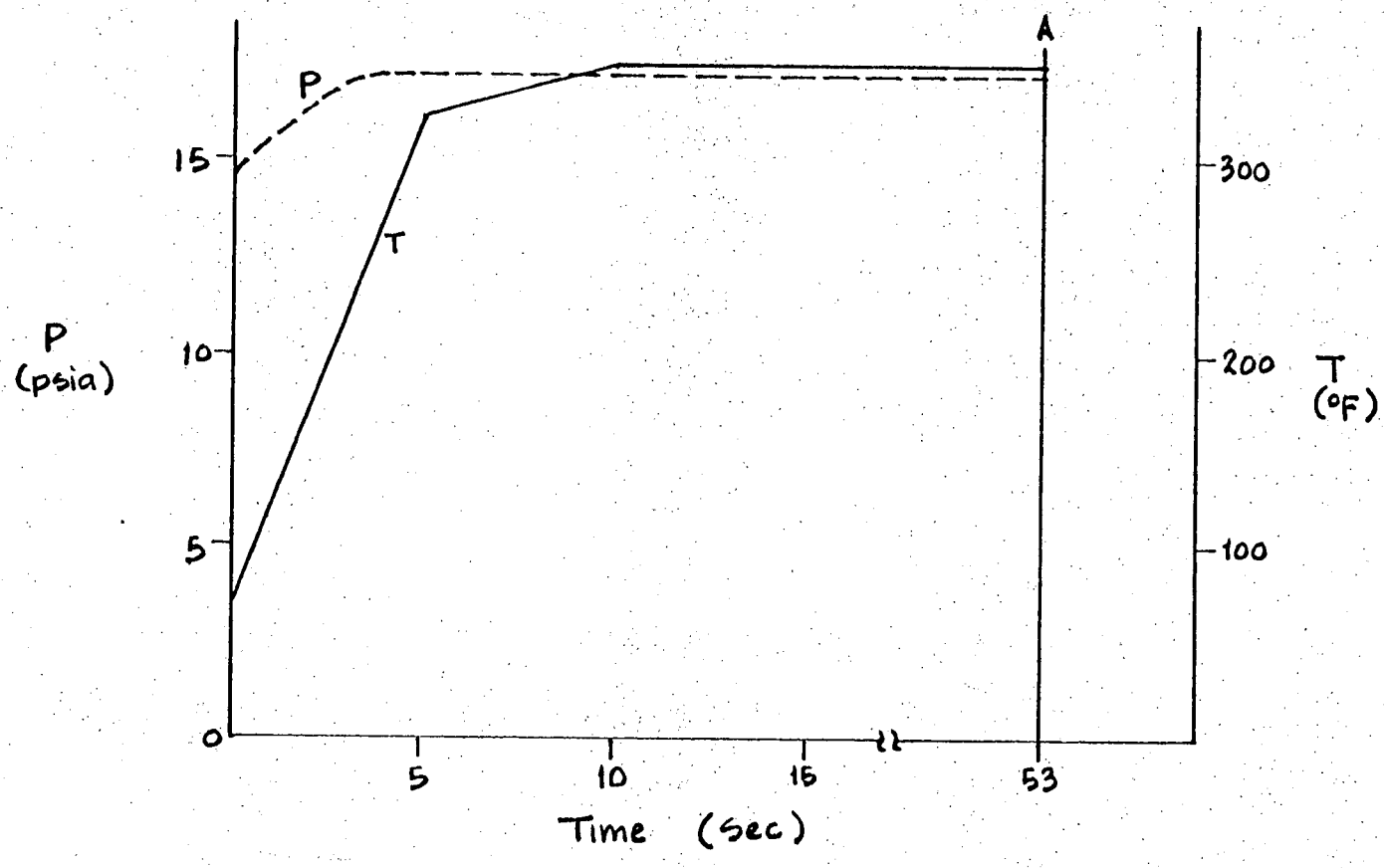
Table B.1



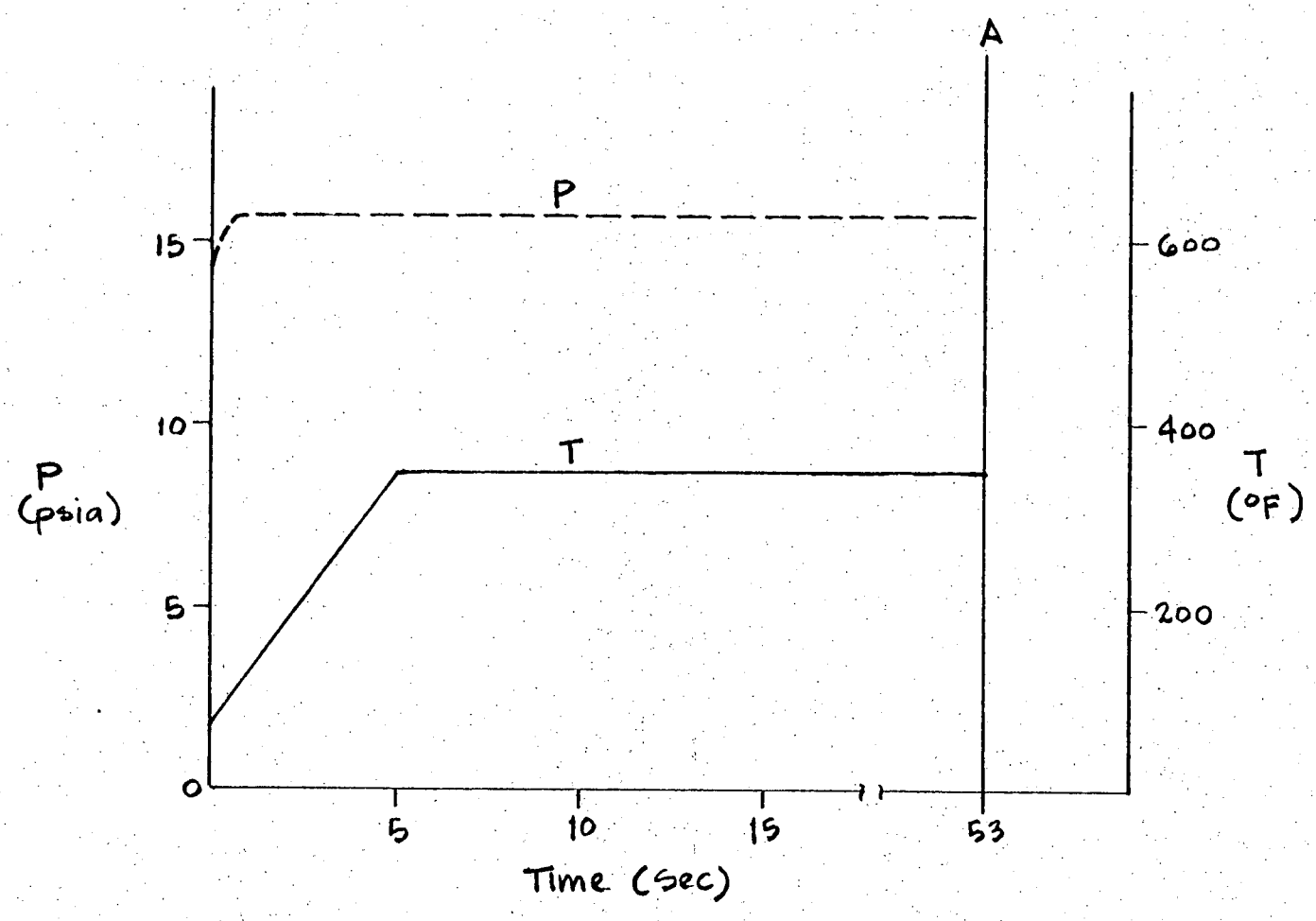
Profile B.3 - Main Steam Line Break in Main Steam Line Tunnel-Temperature and Pressure Transient for Environmental Condition A



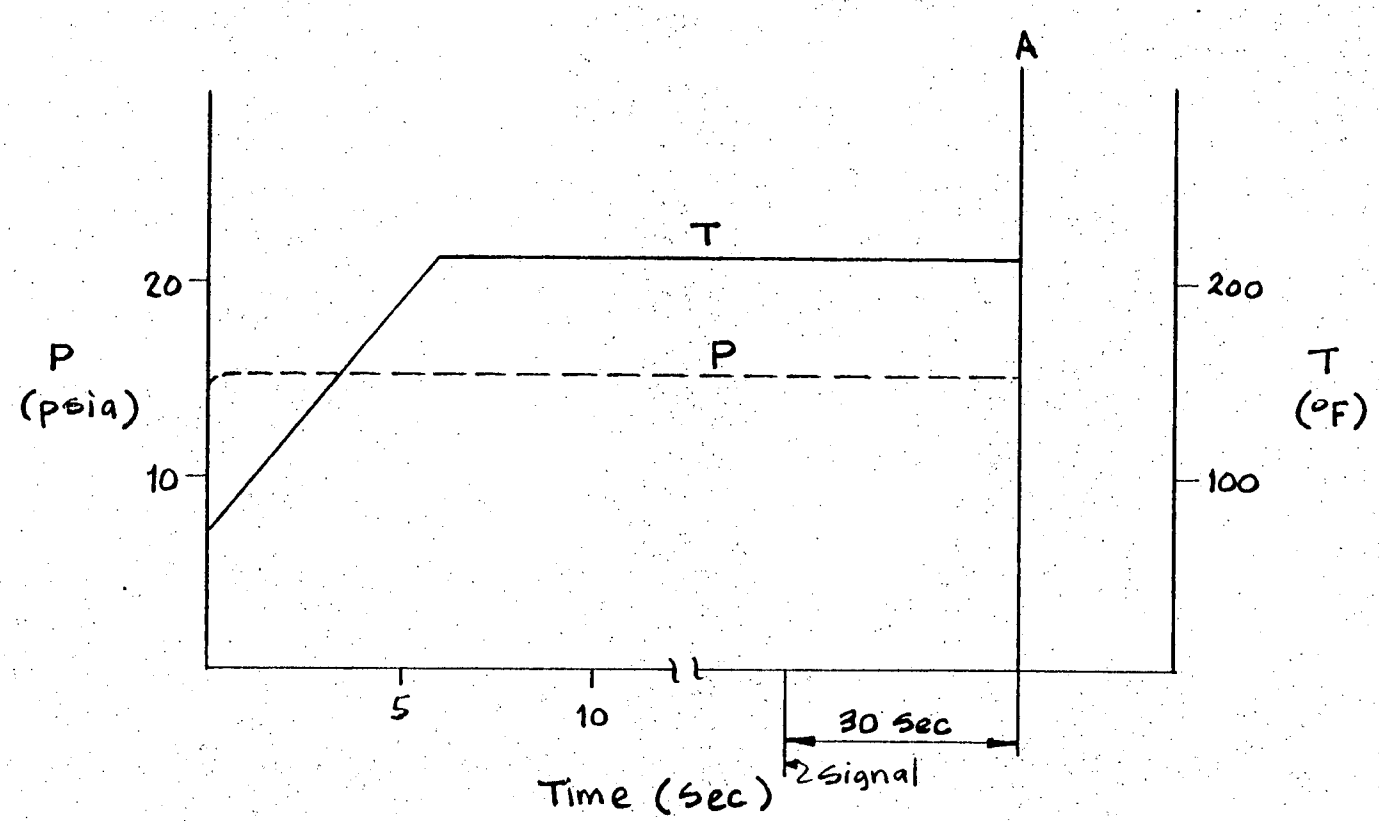
Profile B.4 - Main Steam Line Break in Turbine Building - Temperature and Pressure Transient for Environmental Condition B



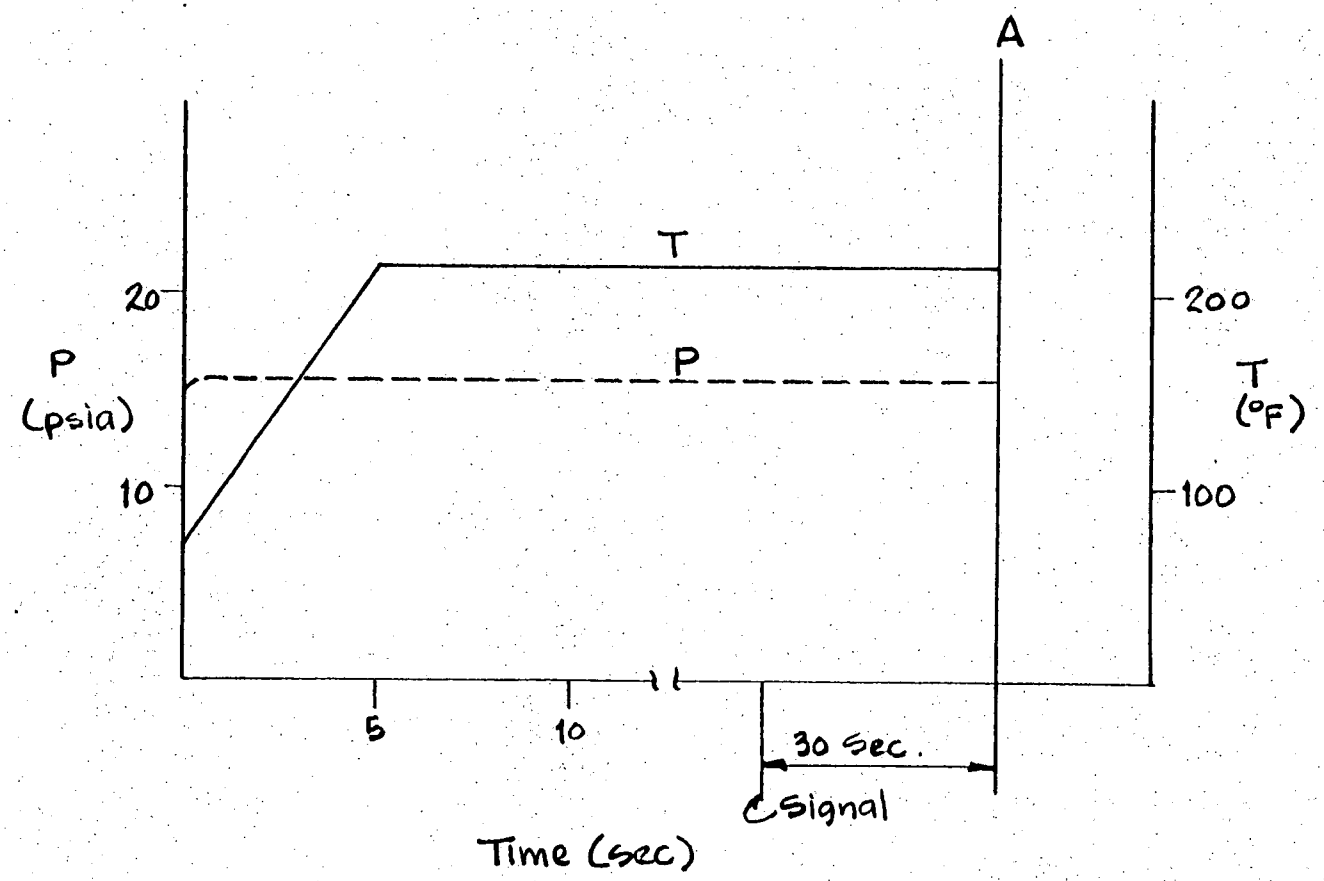
Profile B.5 - HPCI Line Break in Torus Compartment - Temperature and Pressure Transient for Environmental Condition C



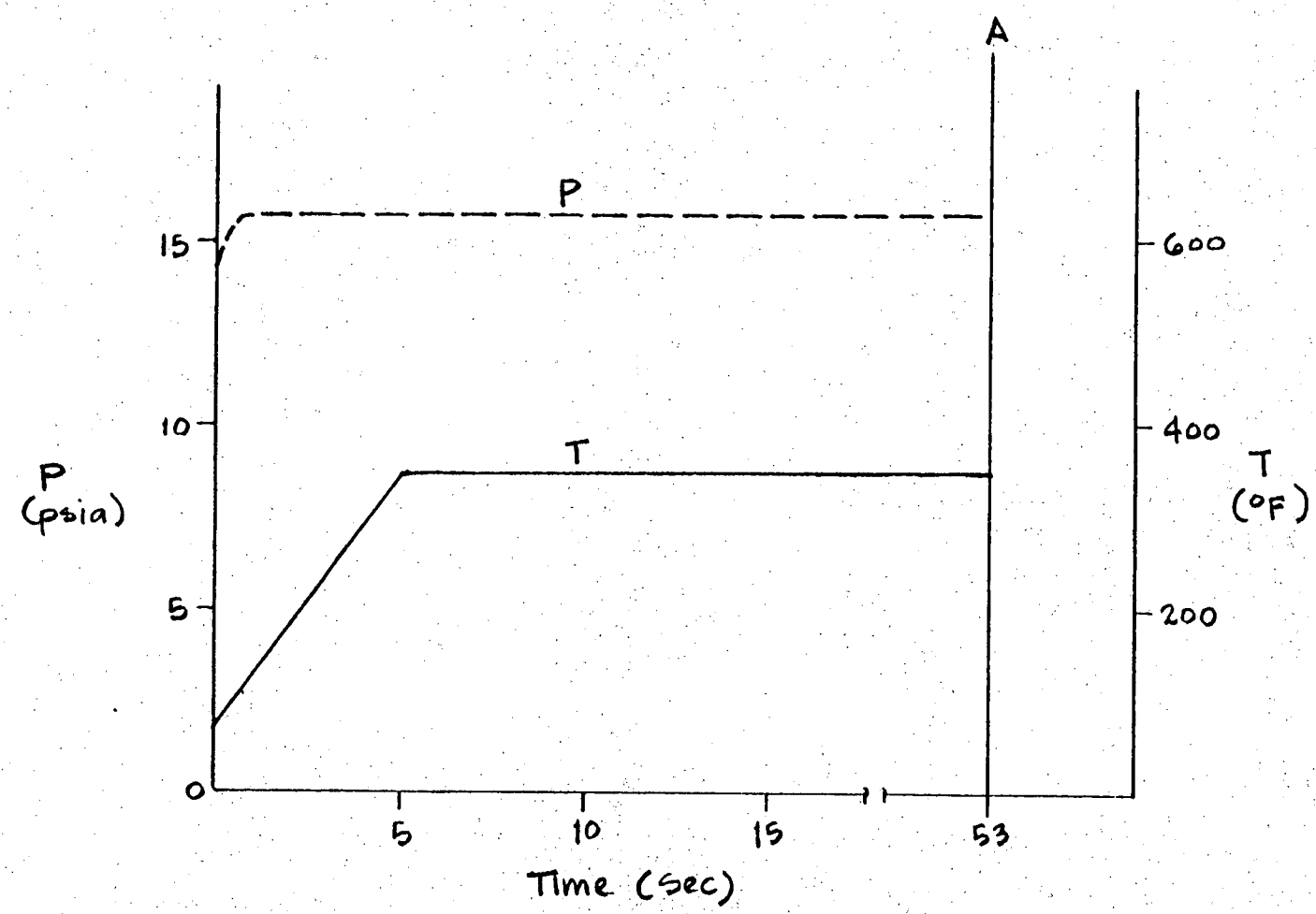
Profile B.6 - HPCI Line Break in HPCI Room - Temperature and Pressure Transient for Environmental Condition D



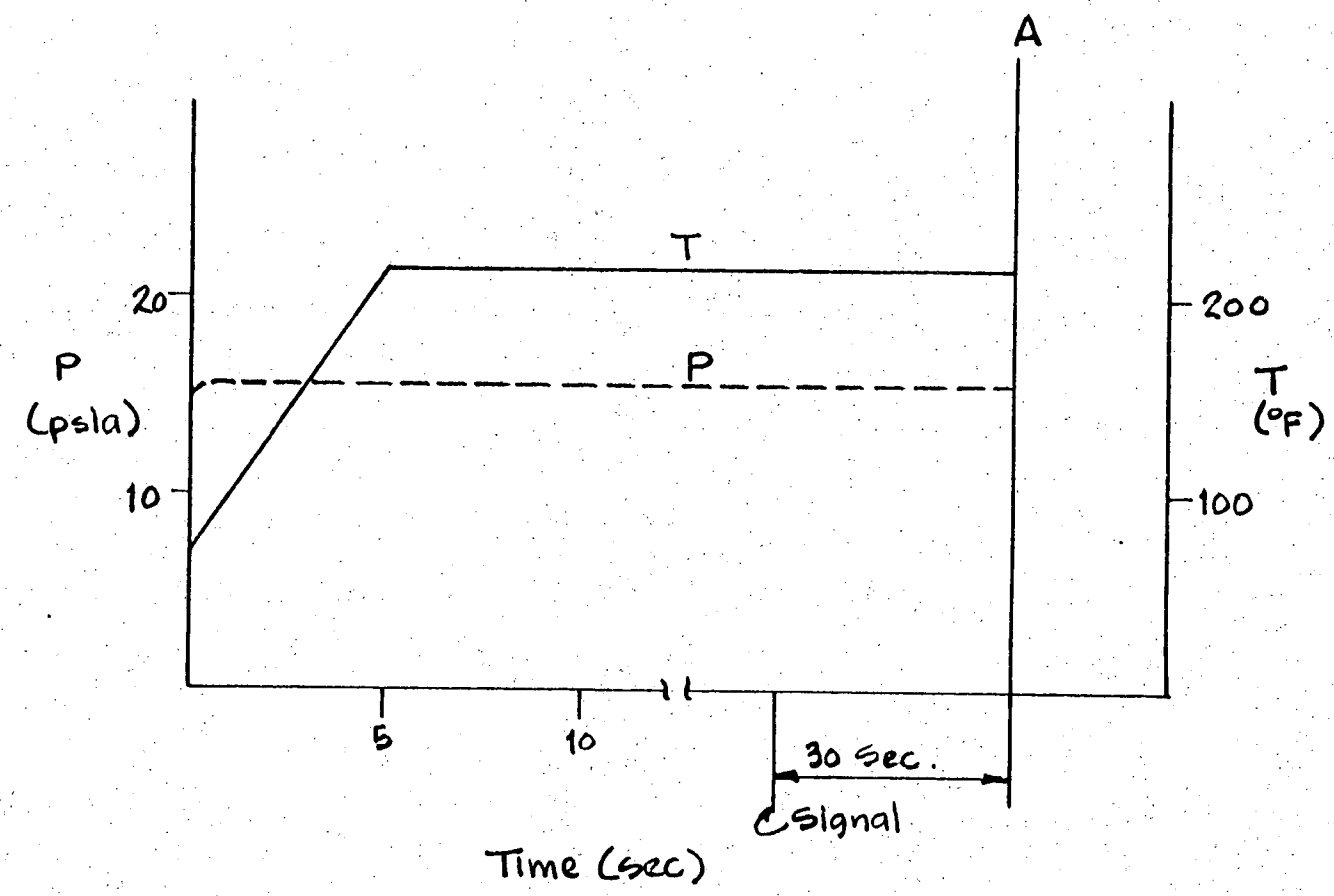
Profile B.7 - RWCU Line Break in RWCU Pump Room - Temperature and Pressure Transient for Environmental Condition E



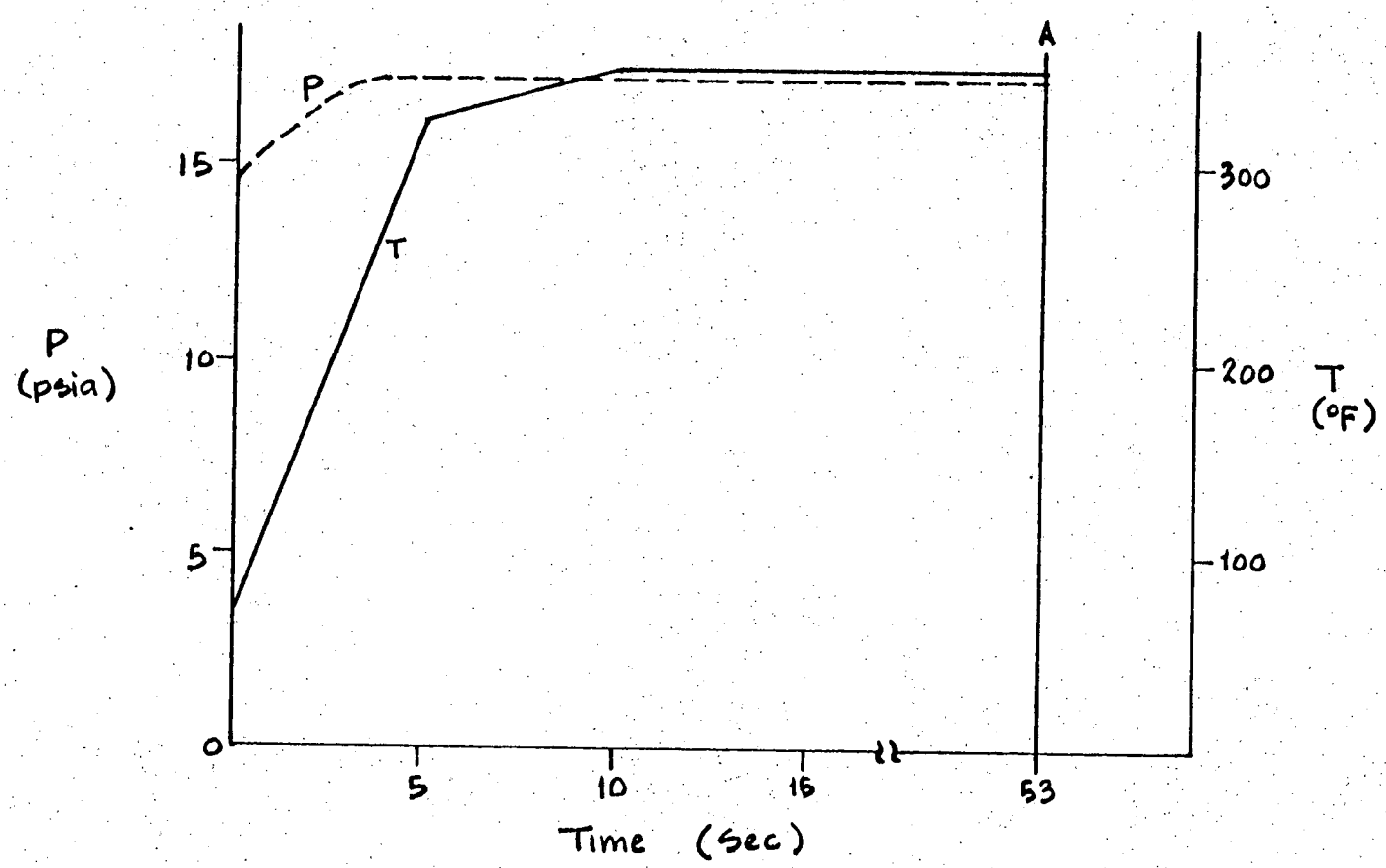
Profile B.8 - RWCU Line Break in HX Room - Temperature and Pressure Transient for Environmental Condition F



Profile B.9 - RCIC Line Break in RCIC Room - Temperature and Pressure Transient for Environmental Condition G



Profile B.10 - RWCU Line Break in Open Space at Elevation 935' and 962'-6" - Temperature and Pressure Transient for Environmental Condition II



Profile B.11 - HPCI Line Break in Torus Compartment - Temperature and Pressure Transient for Environmental Condition I (RHR Rooms)

APPENDIX C

SYSTEM COMPONENT EVALUATION WORKSHEETS

Appendix C contains the following information:

1. System Component Evaluation Worksheets for all safety related Class 1E electrical components identified in Appendix A.

2. Notes pertaining to the evaluation worksheets.

3. Documentation references for the information presented in the evaluation worksheets.

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Main Steam PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: National ACME (NAMCO) MODEL NO.: EA-740-50100 FUNCTION: Position Indication ACCURACY: NA SERVICE: AO 2-80 (A-D) LOCATION: Containment	OPERATING TIME	30 Hrs.	30 days	FSAR Figure 5-2-15	Reference 2.	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	Reference 2	Sequential Test	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	Reference 2	Sequential Test	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Figure 5.2.3.2	Reference 2	Sequential Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	3.3×10^7	2×10^8	FSAR Table 14-10-4	Reference 2	Sequential Test	None
	AGING		40 years		Reference 2	Sequential Test	None
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

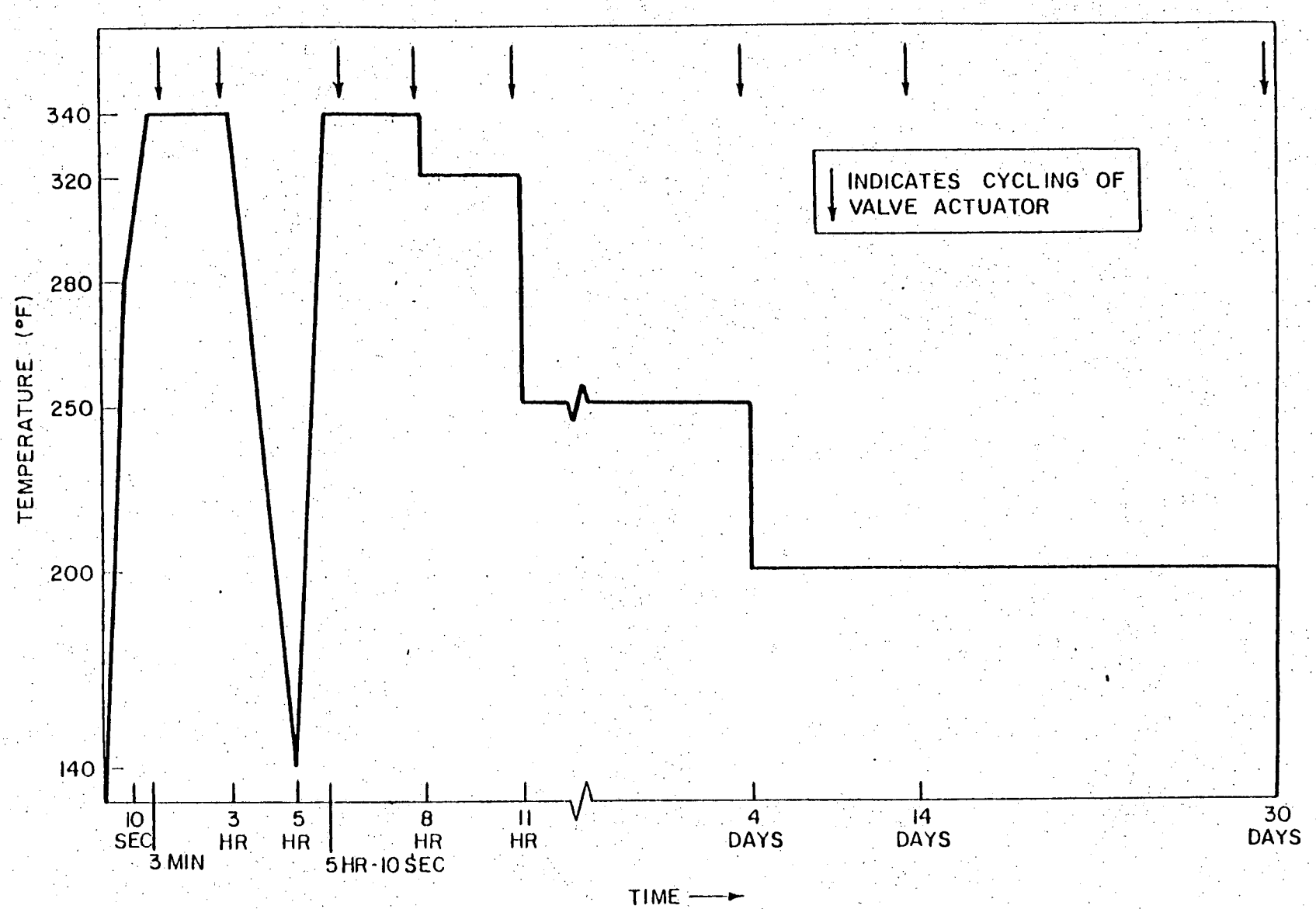


Fig 1
Test Chamber Temperature Profile for Accident Environment Simulation

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Main Steam PLANT I.D. NO.: SV 2-80 (A-D) SV 2-86 (A-3) COMPONENT: Solenoid Valve Assembly MANUFACTURER: Automatic Valve Co. MODEL NO.: C-4988-15 FUNCTION: Pilot Air Control for MSIV's ACCURACY: NA SERVICE: NA LOCATION: Inside Containment	OPERATING TIME	5 min.	14.3 hrs.	GE Spec 22A1132	Reference 18	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	"	"	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	"	"	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Section 5.2.3.2	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	2×10^6		FSAR Table 14-10-4			Note 1,2
	AGING	Not Required					Note 1,2
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

Temperature Exposure

The following is a tabulation of total temperature exposure above 250°F commenced on August 27, 1970 on the Automatic valves.

a. Time above 250°F: 9.3 hours

b. Time above 310°F: 3.5 hours

c. Time above 340°F: 3.3 hours

Saturated steam conditions were maintained during the test.

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT		DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Main Steam PLANT I.D. NO.: See below COMPONENT: Temperature Switch MANUFACTURER: Fenwal, Inc. MODEL NO.: 17002-40 FUNCTION: Main Steam Line Break (High Temp) Detection ACCURACY: Spec: ± 2% SERVICE: TS 2-121 (A-D) 2-122 (A-D) 2-123 (A-D) 2-124 (A-D) LOCATION: Steam Chase	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.3)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Main Steam PLANT I.D. NO.: See Below COMPONENT: Differential Pressure Indicating Switch MANUFACTURER: Barton MODEL NO.: 278 FUNCTION: ACCURACY: SERVICE: dPIS 2-116 (A-D) dPIS 2-117 (A-D) dPIS 2-118 (A-D) dPIS 2-119 (A-D) LOCATION: RWCU Pipe Open Space	OPERATING TIME	10 min		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%	100%	Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: PS 2-3-50A COMPONENT: Pressure Switch MANUFACTURER: Barksdale Co. MODEL NO.: B2T-M12SS FUNCTION: Interlock for RHR ACCURACY: Spec: ± 1% SERVICE: Reactor Pressure LOCATION: Inst Rack C-121	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: PS 2-3-50B COMPONENT: Pressure Switch MANUFACTURER: Barksdale Co. MODEL NO.: B2T-A12SS FUNCTION: Interlock For RHR ACCURACY: Spec: ± 1% SERVICE: Reactor Pressure LOCATION: Inst Rack C-122	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: PS 2-3-55 (A-D) COMPONENT: Pressure Switch MANUFACTURER: Barksdale MODEL NO.: B2T-A12SS FUNCTION: ACCURACY: SERVICE: N/A LOCATION: RWCU Pipe Open Space	OPERATING TIME	10 min		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: LIS 2-3-72 (A-D) COMPONENT: Level Indicating Switch MANUFACTURER: Yarway Corp. MODEL NO.: 4418C FUNCTION: ESF Actuation ACCURACY: Spec: Repeatable within ± 3 in. SERVICE: Reactor Level LOCATION: Inst Rack C-55, C-56	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	(Accident Profile B.10)		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: PS 2-3-53 (A, B) COMPONENT: Pressure Switch MANUFACTURER: Barksdale Co. MODEL NO.: B2T-M12SS FUNCTION: Core Spray, RHR permissive ACCURACY: Spec: ±1% SERVICE: Reactor Pressure LOCATION: Inst Rack C-122	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	(Accident Profile B.10)		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION		ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
		PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM:	Nuclear Boiler	OPERATING TIME	10 mins		Note 4			Note 1
PLANT I.D. NO.:	PS 2-3-52A	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
COMPONENT:	Pressure Switch	PRESSURE (PSIG)			Reference 3			Note 1
MANUFACTURER:	Barksdale Co.	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
MODEL NO.:	B2T-M12SS	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
FUNCTION:	Core Spray Valve open permissive	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
ACCURACY:	Spec: ± 1%	AGING	Not Required		Note 2			Note 1
SERVICE:	Reactor Pressure	SUBMERGENCE	NA	NA	NA	NA	NA	NA
LOCATION:	Inst Rack C-55							

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: PS 2-3-52B COMPONENT: Pressure Switch MANUFACTURER: Barton Instrument Co. MODEL NO.: 288 FUNCTION: Core Spray Valve open permissive ACCURACY: Spec: ± 1% SERVICE: Reactor Pressure LOCATION: Inst Rack C-56	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: PS 2-3-49B COMPONENT: Pressure Switch MANUFACTURER: Barksdale Co. MODEL NO.: B2T-A12SS FUNCTION: Interlock for RHR ACCURACY: Spec: ± 1% SERVICE: Reactor Pressure LOCATION: Inst Rack C-122	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	(Accident Profile B.10)		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: PS 2-3-49A COMPONENT: Pressure Switch MANUFACTURER: Barksdale Co. MODEL NO.: B2T-M12SS FUNCTION: Interlock For RHR ACCURACY: Spec.: ± 1% SERVICE: Reactor Pressure LOCATION: Inst Rack C-121	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: LIS 2-3-57 (A, B) LIS 2-3-58 (A, B) COMPONENT: Level Indicating Switch MANUFACTURER: Yarway Corp. MODEL NO.: 4418C FUNCTION: Reactor SCRAM, Containment Isolation ACCURACY: Spec: Repeatable within ± 3 inches. SERVICE: Reactor Level LOCATION: Inst Rack C-55, C-56	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: LIS 2-3-73 (A, B) COMPONENT: Level Indicating Switch MANUFACTURER: Yarway Corp. MODEL NO.: 4418EC FUNCTION: Containment Spray Logic/Indication ACCURACY: Spec: 3% SERVICE: Reactor Level LOCATION: Inst Rack C-121, C-12	OPERATING TIME	180 days		Note 5			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: LT 2-3-61 COMPONENT: Level Transmitter MANUFACTURER: GE MODEL NO.: 553 FUNCTION: Indication ACCURACY: Spec: ± 2% Span SERVICE: Rx Vessel Level LOCATION: Inst Rack C-55	OPERATING TIME	180 days		Note 5			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: PT 6-53 (A,B) COMPONENT: Pressure Transmitter MANUFACTURER: GE MODEL NO.: 551 FUNCTION: Indication ACCURACY: Spec: ± 1% Span SERVICE: Reactor Pressure LOCATION: A- Inst. Rack C-55 B- Inst. Rack C-56	OPERATING TIME	180 days		Note 5			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: LT 6-52 (A,B) COMPONENT: Level Transmitter MANUFACTURER: GE MODEL NO.: 555 FUNCTION: Indication ACCURACY: NA SERVICE: Reactor Level LOCATION: A-Inst. Rack C-55 B-Inst. Rack C-56	OPERATING TIME	180 days		Note 5			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: LITS 2-3-59 (A,B) COMPONENT: Level Indicating Transmitting Switch MANUFACTURER: Yarway MODEL NO.: 4418CE FUNCTION: Indication ACCURACY: Spec: ± 1% Span SERVICE: Reactor Level LOCATION: A-Instrument Rack C-55 B-Instrument Rack C-56	OPERATING TIME	180 days		Note 5			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	(Accident Profile B.10)		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Notr 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Nuclear Boiler PLANT I.D. NO.: PS 2-3-51 (A-D) COMPONENT: Pressure Switch MANUFACTURER: Barksdale Co. MODEL NO.: B2T-M12SS FUNCTION: Condenser Vac./MSIV Interlock ACCURACY: Spec: ± 1% SERVICE: Reactor Pressure LOCATION: Inst Rack C-55, C-56	OPERATING TIME	1 sec		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required		Note 6			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUA[illegible] WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Recirc PLANT I.D. NO.: See Below COMPONENT: Valve Operator MANUFACTURER: Limitorque MODEL NO.: SB, SMB FUNCTION: Actuate Recirc Pump Discharge Valves ACCURACY: NA SERVICE: MO 2-53 A-B MO 2-54 A-B LOCATION: Containment	OPERATING TIME	43 Sec.	30 days	Reference 5	Reference 6	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	"	"	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	"	"	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Section 5-2.3.2	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1×10^6	2×10^8	FSAR Table 14-10-4	"	"	None
	AGING	Not Required	40 yrs.		"	Sequential Test/Engineering Analysis	None
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

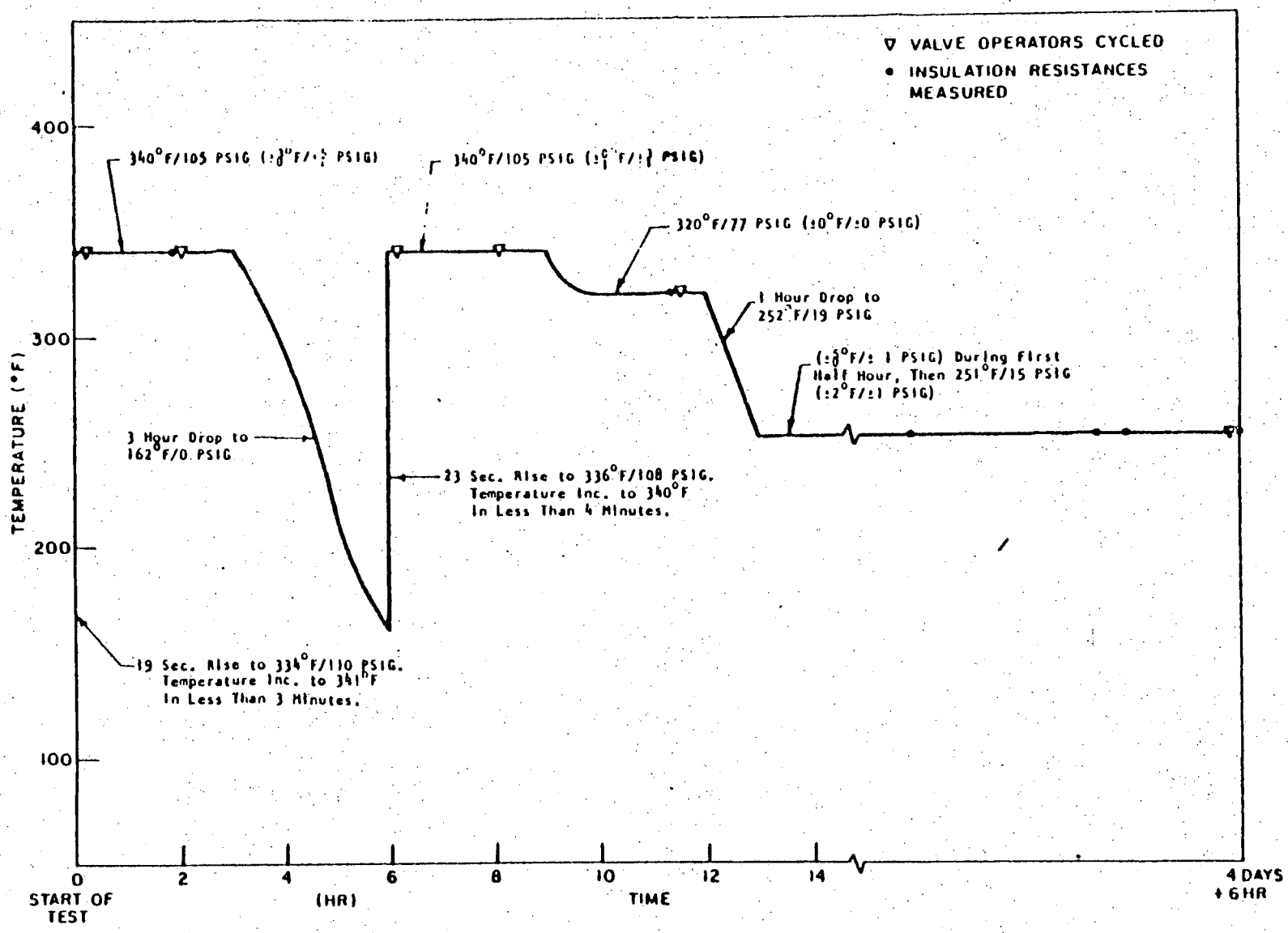


Figure 3. Actual Steam Exposure Profile

F-C3441

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Recirc PLANT I.D. NO.: SV 2790 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: NP 8321A1E FUNCTION: Pilot Air Control for Isolation Valve ACCURACY: N/A SERVICE: Reactor Water Sample Line Isolation LOCATION: Containment	OPERATING TIME	5 min.	30 days	GE Spec 22A1132	Reference 7	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	"	"	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	"	"	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Section 5.2.3.2	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	5×10^6	5×10^7	GE Spec 22A1132	"	"	None
	AGING	Not Required	4.4 yrs.		"	"	None
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

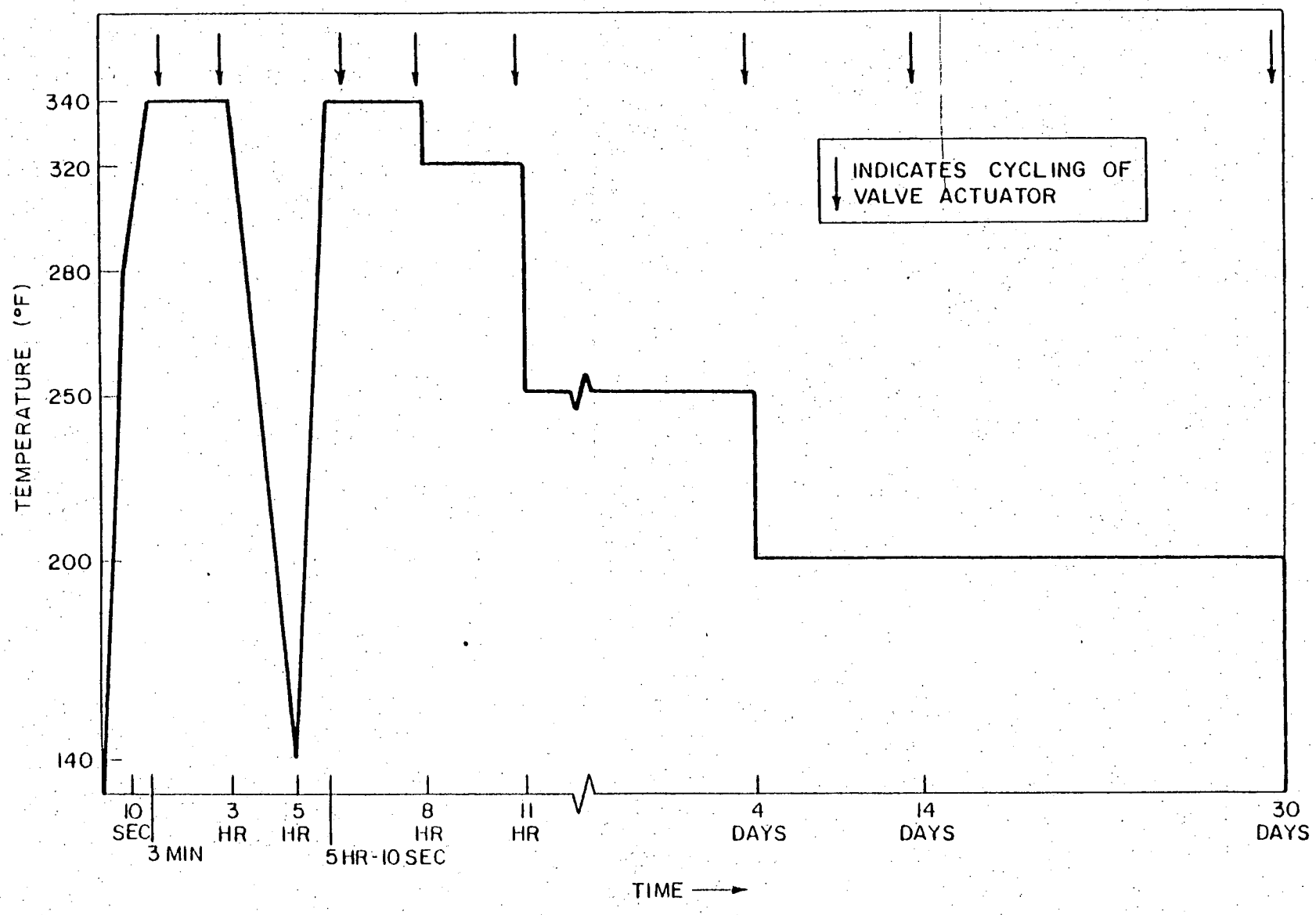


Fig 1
Test Chamber Temperature Profile for Accident Environment Simulation

Plant I.D. No.: SV 2790

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Recirc PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: National ACME (NAMCO) MODEL NO.: EA-740-8000 FUNCTION: Position Indication ACCURACY: NA SERVICE: CV-2790 LOCATION: Containment	OPERATING TIME	30 hrs.	30 days	FSAR Figure 5-2-15	Reference 2	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accidnet Profiles B.1 and B.2)		FSAR Figure 5-2-15	Reference 2	Sequential Test	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	Reference 2	Sequential Test	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Section 5.2.3.2	Reference 2	Sequential Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	3.3×10^7	2×10^8	FSAR Table 14-10-4	Reference 2	Sequential Test	None
	AGING		40 yrs.		Reference 2	Sequential Test	None
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

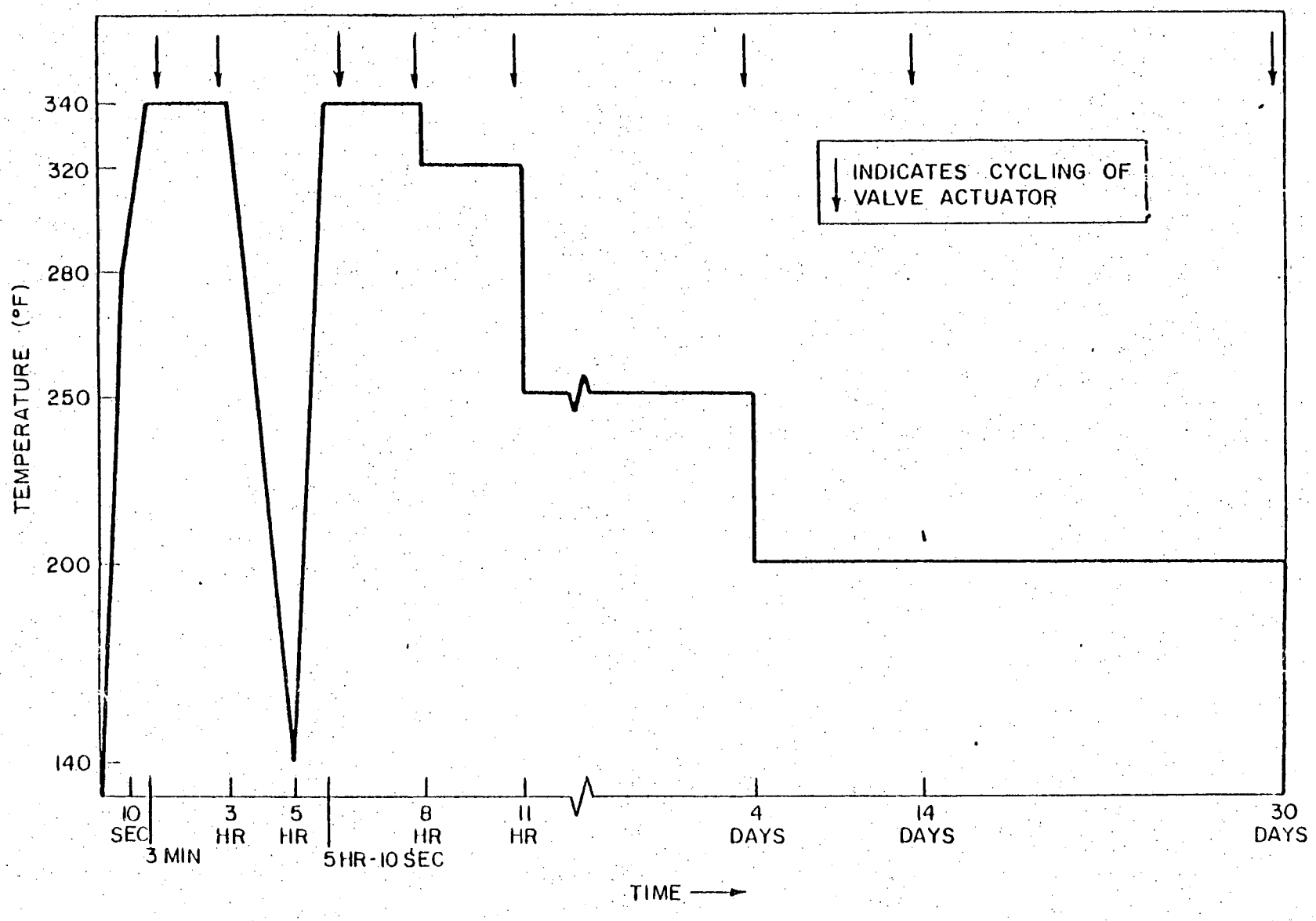


Fig 1
Test Chamber Temperature Profile for Accident Environment Simulation

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Recirculation PLANT I.D. NO.: SV 2791 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: T-HT-831723 FUNCTION: Pilot Air Control for Isolation Valve ACCURACY: NA SERVICE: Reactor Water Sample Line Isolation LOCATION: Clean-up Room 962' elev	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.7)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	5×10^6		GE Spec 22A1132			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Recirculation PLANT I.D. NO.: See below COMPONENT: Differential Pressure Indicating Switch MANUFACTURER: Barton Instrument Co. MODEL NO.: 288 FUNCTION: LPCI Loop Selection ACCURACY: Spec: ± 1% SERVICE: Recirc Loop ΔP DPIS 2-136 (A, B) 2-137 (A, B) 2-138 (A, B) 2-139 (A, B) LOCATION: Inst Rack C-73, C-74	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Recirculation PLANT I.D. NO.: PS 2-128 (A, B) COMPONENT: Pressure Switch MANUFACTURER: Static-O-Ring MODEL NO.: 6N-AA3 FUNCTION: Shutdown Cooling Isolation ACCURACY: Spec: ± 1% SERVICE: Reactor Pressure LOCATION: Inst Rack C122	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Recirculation PLANT I.D. NO.: dPIS 2-129 (A-D) COMPONENT: Differential Pressure Indicating Switch MANUFACTURER: Barton Instrument Co. MODEL NO.: 288 FUNCTION: LPCI Loop Selection ACCURACY: Spec: ± 1% SERVICE: Recirc Loop dP LOCATION: Inst Rack C121, C122	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Control Rod Drive PLANT I.D. NO. SV-3-31 (A, B) COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: HVA-90-441-1A FUNCTION: Actuate Scram Discharge Volume Valves ACCURACY: NA SERVICE: NA LOCATION: Reactor Building Elev. 935' W	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION		ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
		PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM:	Control Rod Drive	OPERATING TIME	10 mins		Note 4			Note 1
PLANT I.D. NO.:	SV 3-140 (A, B)	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
COMPONENT:	Solenoid Valve	PRESSURE (PSIG)			Reference 3			Note 1
MANUFACTURER:	ASCO	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
MODEL NO.:	WPLBX 831636	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
FUNCTION:	Vent Scram Air Header	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
ACCURACY:	NA	AGING	Not Required		Note 2			Note 1
SERVICE:	NA	SUBMERGENCE	NA	NA	NA	NA	NA	NA
LOCATION:	Reactor Building Elevation 950' NE							

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	Control Rod Drive
PLANT I.D. NO.:	SV 3-13-117 3-13-118
COMPONENT:	Solenoid Valve
MANUFACTURER:	ASCO
MODEL NO.:	HVA-90-405
FUNCTION:	Actuate CRD Scram Valves
ACCURACY:	NA
SERVICE:	NA
LOCATION:	Reactor Building Elevation 935'

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	10 mins		Note 4			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
PRESSURE (PSIG)			Reference 3			Note 1
RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	PS 10-101 (A-D)
COMPONENT:	Pressure Switch
MANUFACTURER:	Static-O-Ring
MODEL NO.:	12N-AA2
FUNCTION:	Logic to Initiate Core Spray, HPCI, LPCI
ACCURACY:	Spec: ± 1%
SERVICE:	Drywell Pressure
LOCATION:	Inst Rack C-55,C-56

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	10 mins		Note 4			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
PRESSURE (PSIG)			Reference 3			Note 1
RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: See Below COMPONENT: Valve Motor Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 30A FUNCTION: Actuate Drywell Containment Spray Valve ACCURACY: N/A SERVICE: MO-2020 2021 2022 2023 LOCATION: Rx. Bldg. Elev. 950'	OPERATING TIME	8 hrs	NA	FSAR Section 14.10.1.3			Note 7
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	NA	Note 7
	PRESSURE (PSIG)	Not Required		NA	NA	NA	Note 7
	RELATIVE HUMIDITY (%)	Not Required	NA	NA	NA	NA	Note 7
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: PS 10-119 (A-D) COMPONENT: Pressure Switch MANUFACTURER: Static-O-Ring MODEL NO.: 12N-AA4 FUNCTION: Containment Spray Permissive ACCURACY: Spec: ± 1% SERVICE: Drywell Pressure LOCATION: Inst Rack C-55,C-56	OPERATING TIME	8 hrs	NA	FSAR Section 14.10.1.3			Note 7
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	NA	Note 7
	PRESSURE (PSIG)	Not Required		NA	NA	NA	Note 7
	RELATIVE HUMIDITY (%)	Not Required	NA	NA	NA	NA	Note 7
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATI[illegible] WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	PS10-105 (E-H)
COMPONENT:	Pressure Switch
MANUFACTURER:	Static-O-Ring
MODEL NO.:	5N-AA-3X
FUNCTION:	Logic for Auto Blowdown
ACCURACY:	Spec: ± 2%
SERVICE:	Pump Discharge Pressure
LOCATION:	RHR Room Inst Rack C-129

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	10 hrs		GE Spec 21A1060AB			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
PRESSURE (PSIG)			Reference 3			Note 1
RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: See Below COMPONENT: Valve Motor Operator MANUFACTURER: Limitorque MODEL NO.: SMB-2 FUNCTION: Actuate Inboard RHR Injection Valve ACCURACY: N/A SERVICE: MO 2014 2015 LOCATION: Rx. Bldg. Elev. 948'	OPERATING TIME	8 hrs	8 hrs	FSAR Section 14.10.1.3	Reference 10	Simultaneous Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3	Reference 10	Simultaneous Test	None
	PRESSURE (PSIG)	(Accident Profile B.10)		Reference 3	Reference 10	Simultaneous Test	None
	RELATIVE HUMIDITY (%)	100%	100	Reference 3	Reference 10	Simultaneous Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

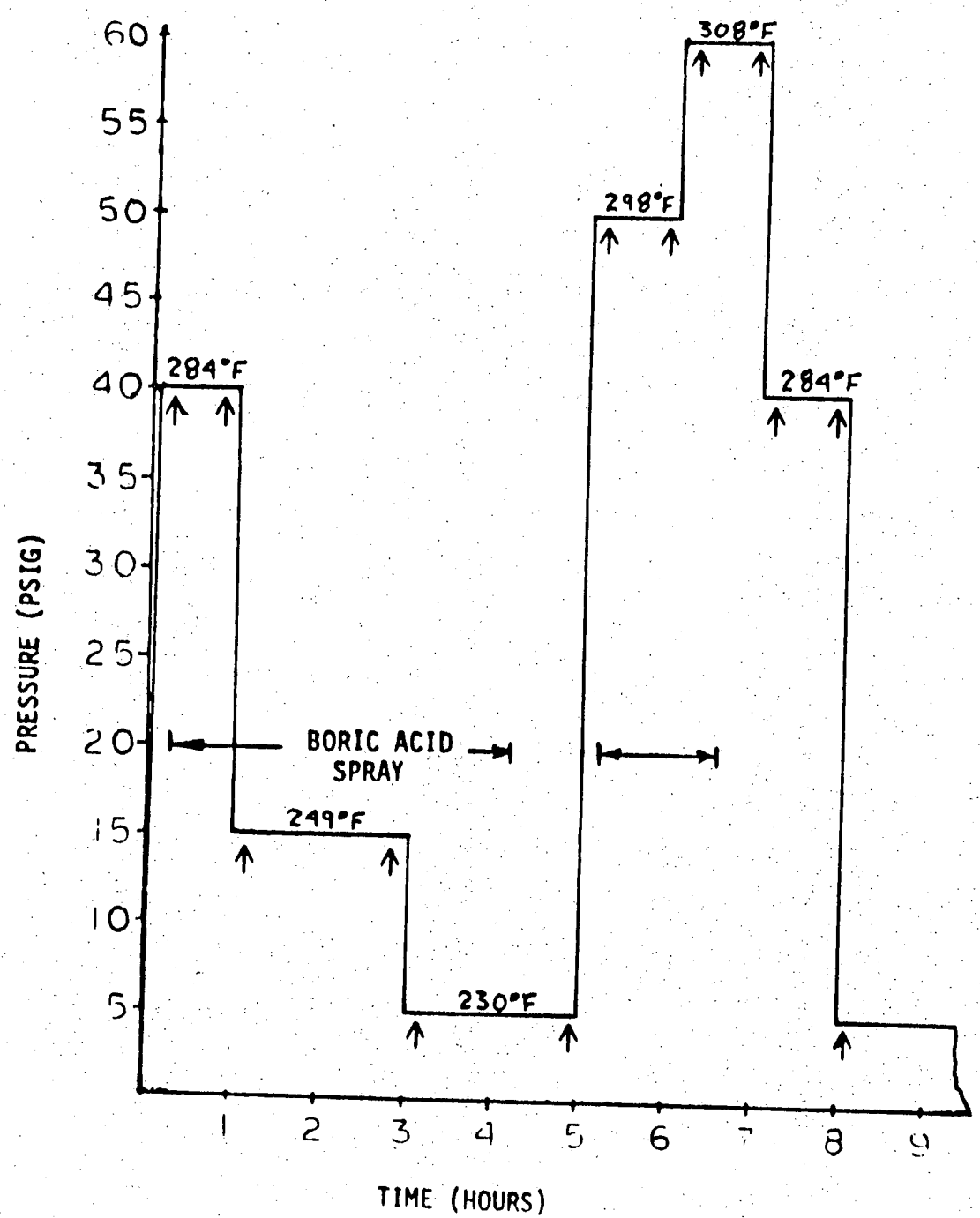


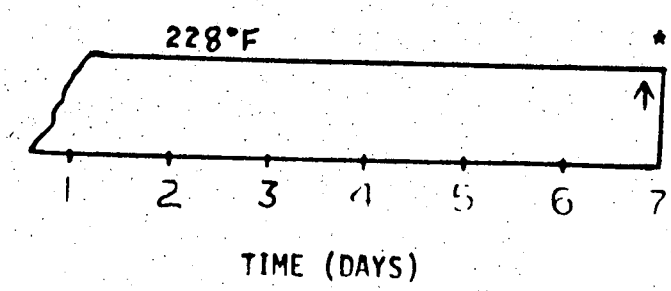
Figure 3

Schedule of Test Environments

Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

↑ = One Valve Operator Cycle

*Limitorque failed to operate.



COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: MO 2030 COMPONENT: Valve Motor Operator MANUFACTURER: Limitorque MODEL NO.: SMB-4 FUNCTION: ACCURACY: N/A SERVICE: N/A LOCATION: Rx. Bldg. Elev. 948'	OPERATING TIME	5 mins	7 days	GE Spec 22A1132	Reference 8	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3	Reference 8	Sequential Test	None
	PRESSURE (PSIG)			Reference 3	Reference 8	Sequential Test	None
	RELATIVE HUMIDITY (%)	100	100	Reference 3	Reference 8	Sequential Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required	40 yrs.	Note 2	Reference 9	Sequential Test	None
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

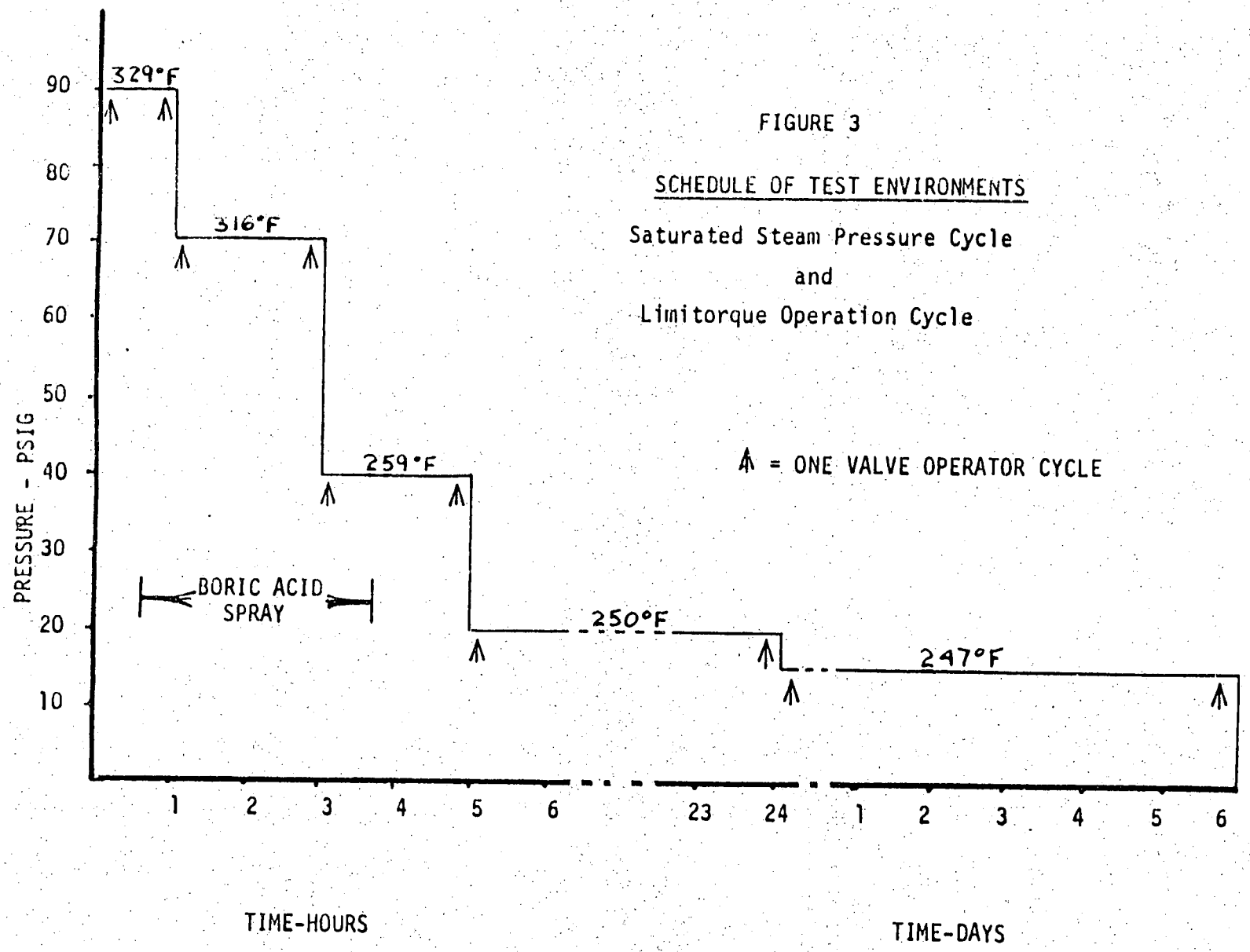


FIGURE 3

SCHEDULE OF TEST ENVIRONMENTS

Saturated Steam Pressure Cycle

and

Limitorque Operation Cycle

⋀ = ONE VALVE OPERATOR CYCLE

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: See Below COMPONENT: Valve Motor Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 30A FUNCTION: Actuate RHR Pump Suction Valve ACCURACY: N/A SERVICE: MO 1986 1987 1988 1989 LOCATION: RHR Room	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: See Below COMPONENT: Valve Motor Operator MANUFACTURER: Limitorque MODEL NO.: SMB-5 FUNCTION: Actuate Outboard RHR Injection Valve ACCURACY: N/A SERVICE: MO 2012 2013 LOCATION: Rx. Bldg. Elev. 939'	OPERATING TIME	8 hrs	7 days	FSAR Section 14.10.1.3	Reference 8	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3	"	"	None
	PRESSURE (PSIG)			Reference 3	"	"	None
	RELATIVE HUMIDITY (%)	100	100	Reference 3	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required	40 years	Note 2	Reference 9	Sequential Test	None
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

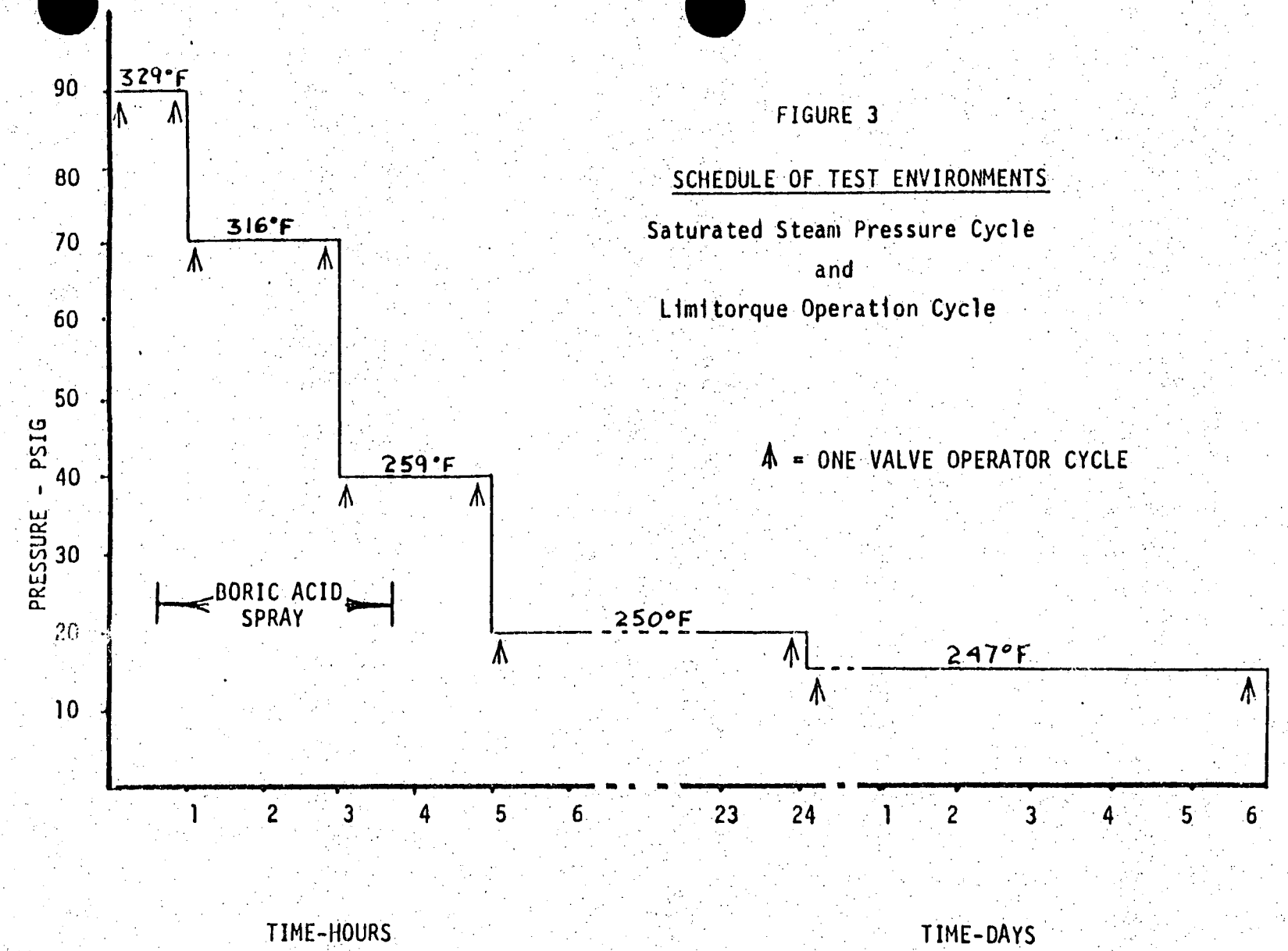


FIGURE 3

SCHEDULE OF TEST ENVIRONMENTS

Saturated Steam Pressure Cycle

and

Limitorque Operation Cycle

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: FS 10-121 (A-D) COMPONENT: Flow Switch MANUFACTURER: Peeco Corp. MODEL NO.: HP-F FUNCTION: RHR Recirc ACCURACY: Spec: ± 2% SERVICE: Pump Discharge Flow LOCATION: RHR Room	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	(Accident Profile B.11)		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUAT[illegible] WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	K-10 (A,B)
COMPONENT:	Motor Starter
MANUFACTURER:	GE
MODEL NO.:	CR 106
FUNCTION:	N/A
ACCURACY:	N/A
SERVICE:	Aux Air Compressor
LOCATION:	Rx Bldg Elev 935'

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
PRESSURE (PSIG)			Reference 3			Note 1
RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	See Below
COMPONENT:	Solenoid Valve
MANUFACTURER:	ASCO
MODEL NO.:	T-HT-831723
FUNCTION:	Actuate CV 1994 1995 1996 1997
ACCURACY:	N/A
SERVICE:	SV 1994 1995 1996 1997
LOCATION:	RHR Room

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
PRESSURE (PSIG)			Reference 3			Note 1
RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUAT[illegible] WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	PS 7193, 7192
COMPONENT:	Pressure Switch
MANUFACTURER:	Square D
MODEL NO.:	GHG551
FUNCTION:	Compressor Start Switch on RHR Aux Air Compressor
ACCURACY:	N/A
SERVICE:	Inst. Air
LOCATION:	Rx. Bldg. SE Elev 935'

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
PRESSURE (PSIG)			Reference 3			Note 1
RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: P-202 (A-D) COMPONENT: Pump Motor MANUFACTURER: General Electric MODEL NO.: 5K6329XC4A FUNCTION: N/A ACCURACY: N/A SERVICE: Motors for RHR Pumps LOCATION: RHR Room	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	K-10 (A-B)
COMPONENT:	Line Switch
MANUFACTURER:	GE
MODEL NO.:	THN 3361 mod 2
FUNCTION:	NA
ACCURACY:	N/A
SERVICE:	Aux. Air Compressor
LOCATION:	Rx Bldg Elev 935'

ENVIRONMENT			DOCUMENTATION REF		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiel B.10)		Reference 3			Note 1
PRESSURE (PSIG)			Reference 3			Note 1
RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
AGING	Not Required		Note 2.			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: E/P 1729, 1728 COMPONENT: Electrical Pneumatic Transducer MANUFACTURER: Fisher MODEL NO.: 546 FUNCTION: Control for CV 1728, 1729 ACCURACY: N/A SERVICE: N/A LOCATION: RHR Room	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	SV 1729, 1728
COMPONENT:	Solenoid Valve
MANUFACTURER:	ASCO
MODEL NO.:	T-HB-830081RU
FUNCTION:	
ACCURACY:	N/A
SERVICE:	Inst. Air
LOCATION:	RHR Room

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
PRESSURE (PSIG)			Reference 3			Note 1
RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: FT 10-109 (A,B) COMPONENT: Flow Transmitter MANUFACTURER: GE MODEL NO.: 553 FUNCTION: Indication ACCURACY: Spec: ± 1 ½% Span SERVICE: LPCI Flow LOCATION: RHR Room	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: dPT 10-91 (A,B) COMPONENT: Differential Pressure Transmitter MANUFACTURER: Barton MODEL NO.: 296 FUNCTION: RHR Heat Exchanger Shell to Tube Differential Pressure ACCURACY: Spec: ± ½% Span SERVICE: LOCATION: RHR Room	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: FT 10-111 (A,B) COMPONENT: Flow Transmitter MANUFACTURER: GE MODEL NO.: 553 FUNCTION: Indication ACCURACY: N/A SERVICE: Containment Cooling Flow LOCATION: A-RHR Pump Room B-Reactor Bldg 935'	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.10 and B.11)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATI N WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFI-CATION METHOD	OUTSTAND-ING ITEMS
	PARAMETER	SPECIFI-CATION	QUALIFI-CATION	SPECIFI-CATION	QUALIFI-CATION		
SYSTEM: RHR PLANT I.D. NO.: K-10 (A,B) COMPONENT: MOTOR MANUFACTURER: GE MODEL NO.: 5KI45A1246 FUNCTION: N/A ACCURACY: N/A SERVICE: Motor for Aux Air Compressor LOCATION: Rx Bldg Elev 935'	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION		ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
		PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM:	RHR	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
PLANT I.D. NO.:	See Below	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
COMPONENT:	Valve Motor Operator	PRESSURE (PSIG)			Reference 3			Note 1
MANUFACTURER:	Rotork, Inc.	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
MODEL NO.:	12A	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
FUNCTION:	Actuates Waste Surge Tank Isolation Valve	RADIATION (RADS)	7.5×10^4		FSAR 14.10.1.3			Note 1
ACCURACY:	N/A	AGING	Not Required		Note 2			Note 1
SERVICE: MO 2407 2032		SUBMERGENCE	NA	NA	NA	NA	NA	NA
LOCATION:	Torus Area							

COMPONENT EVALUAT ON WORKSHEET

EQUIPMENT DESCRIPTION		ENVIRONMENT		DOCUMENTATION REF.		QUALIFI-CATION METHOD	OUTSTAND-ING ITEMS
		PARAMETER	SPECIFI-CATION	QUALIFI-CATION	SPECIFI-CATION	QUALIFI-CATION		
SYSTEM:	RHR	OPERATING TIME	10 hrs		GE Spec 21A1060AB			Note 1
PLANT I.D. NO.:	PS 10-100(A-D)	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
COMPONENT:	Pressure Switch	PRESSURE (PSIG)			Reference 3			Note 1
MANUFACTURER:	Static-O-Ring	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
MODEL NO.:	12N-AA4	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
FUNCTION:	Logic to Initiate Auto Blowdown	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
ACCURACY:	Spec: ±1%	AGING	Not Required		Note 2			Note 1
SERVICE:	Drywell Pressure	SUBMERGENCE	NA	NA	NA	NA	NA	NA
LOCATION:	Inst Rack C-55,C-56							

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: See Below COMPONENT: Valve Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 150A FUNCTION: Actuate RHR Heat Exchanger Bypass Valve ACCURACY: N/A SERVICE: MO 2002 2003 LOCATION: RHR Room	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	(Accident Profile B.11)		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	PS 10-105 (A-D)
COMPONENT:	Pressure Switch
MANUFACTURER:	Mercoid Corp.
MODEL NO.:	DAW-23-156
FUNCTION:	Logic for Auto Blowdown
ACCURACY:	Spec: ± 2%
SERVICE:	Pump Discharge Pressure
LOCATION:	Inst Rack C-129

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	10 hrs		GE Spec 21A1060AB			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
PRESSURE (PSIG)			Reference 3			Note 1
RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	MO 2026
COMPONENT:	Valve Motor Operator
MANUFACTURER:	Limitorque
MODEL NO.:	SMB-00
FUNCTION:	Actuate Containment Isolation Valve
ACCURACY:	N/A
SERVICE:	N/A
LOCATION:	Rx. Bldg. Elev. 980'

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	5 mins	7 days	CE Spec 22A1132	Reference 8	Sequential Test	None
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3	Reference 8	Sequential Test	None
PRESSURE (PSIG)			Reference 3	Reference 8	Sequential Test	None
RELATIVE HUMIDITY (%)	100	100	Reference 3	Reference 8	Sequential Test	None
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
AGING	Not Required	40 yrs.	Note 2	Reference 9	Sequential Test	None
SUBMERGENCE	NA	NA	NA	NA	NA	NA

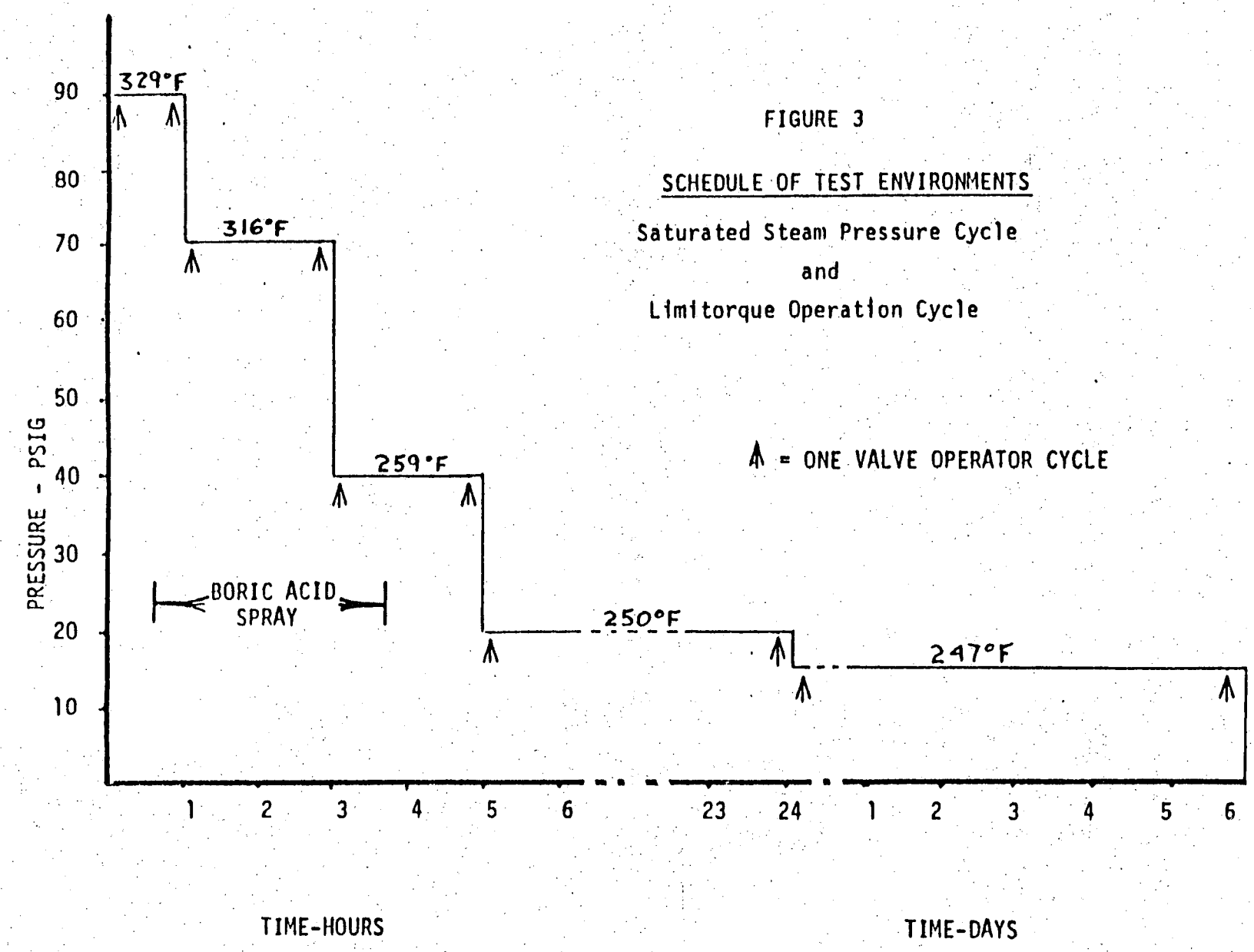


FIGURE 3

SCHEDULE OF TEST ENVIRONMENTS

Saturated Steam Pressure Cycle

and

Limitorque Operation Cycle

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RHR
PLANT I.D. NO.:	MO 2030
COMPONENT:	Valve Motor Operator
MANUFACTURER:	Limitorque
MODEL NO.:	SMB-4
FUNCTION:	Actuate Containment Isolation Valve
ACCURACY:	N/A
SERVICE:	N/A
LOCATION:	Rx. Bldg. Elev. 948'

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	5 mins	7 days	GE Spec 22A1132	Reference 8	Sequential Test	None
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3	Reference 8	Sequential Test	None
PRESSURE (PSIG)			Reference 3	Reference 8	Sequential Test	None
RELATIVE HUMIDITY (%)	100	100	Reference 3	Reference 8	Sequential Test	None
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
AGING	Not Required	40 yrs.	Note 2	Reference 9	Sequential Test	None
SUBMERGENCE	NA	NA	NA	NA	NA	NA

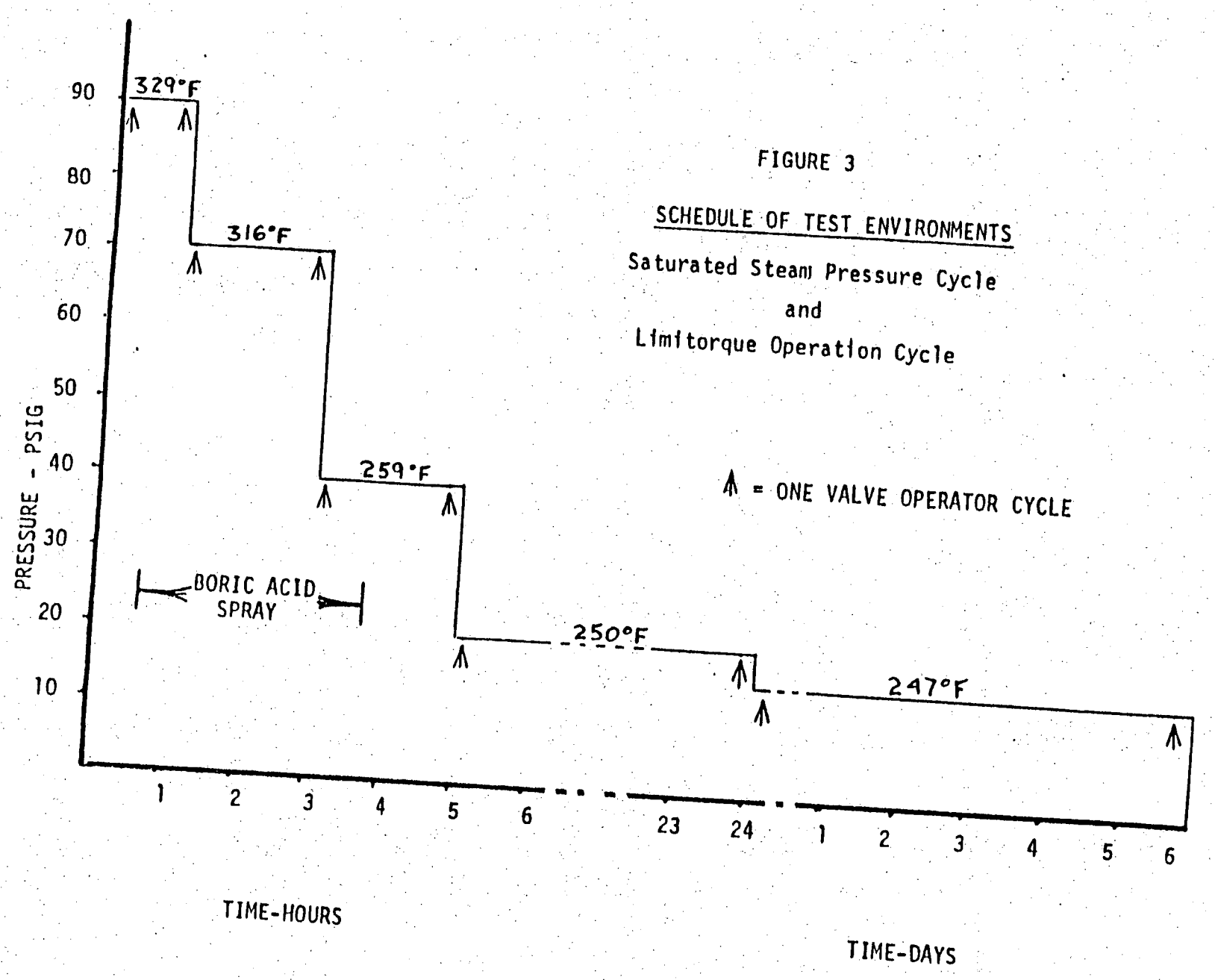


FIGURE 3

SCHEDULE OF TEST ENVIRONMENTS

Saturated Steam Pressure Cycle

and

Limitorque Operation Cycle

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: See Below COMPONENT: Valve Motor Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 35A FUNCTION: Actuate Outboard Torus Spray Valve ACCURACY: N/A SERVICE: MO 2006 2007 LOCATION: 2007 - Rx. Bldg Elev 935' 2006 - Torus Area	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.5 and B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: See Below COMPONENT: Valve Motor Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 70NA4 FUNCTION: Actuate Torus Cooling Valves ACCURACY: N/A SERVICE: MO 2008 2009 LOCATION: Torus Area	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: See Below COMPONENT: Valve Motor Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 14AMK11 FUNCTION: Actuate Inboard Torus Spray Valve ACCURACY: N/A SERVICE: MO 2010 2011 LOCATION: Torus Area	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RHR PLANT I.D. NO.: See Below COMPONENT: Aux. Comp Disconnect MANUFACTURER: GE MODEL NO.: THN 3361 Mod 2 FUNCTION: ACCURACY: SERVICE: N3347 N4347 LOCATION: RWCU Pipe Open Space	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%	100%	"			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Core Spray PLANT I.D. NO.: PS 14-44 (A-D) COMPONENT: Pressure Switch MANUFACTURER: Barksdale Co. MODEL NO.: B2T-M12SS FUNCTION: Logic for Auto Blowdown ACCURACY: Spec: ± 2% SERVICE: Core Spray Pump Discharge Pressure LOCATION: Inst Rack C-129	OPERATING TIME	10 hrs		GE Spec 21A1060AB			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	(Accident Profile B.11)		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Core Spray PLANT I.D. NO.: See Below COMPONENT: Valve Motor Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 30A FUNCTION: Actuate System Test Valve ACCURACY: N/A SERVICE: MO 1749 1750 LOCATION: Torus Area	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUA[illegible] WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFI-CATION METHOD	OUTSTAND-ING ITEMS
	PARAMETER	SPECIFI-CATION	QUALIFI-CATION	SPECIFI-CATION	QUALIFI-CATION		
SYSTEM: Core Spray PLANT I.D. NO.: P-208 (A,B) COMPONENT: Pump Motor MANUFACTURER: General Electric MODEL NO.: 5K6338XC29B FUNCTION: N/A ACCURACY: N/A SERVICE: Motors for Core Spray Pumps LOCATION: RHR Room	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

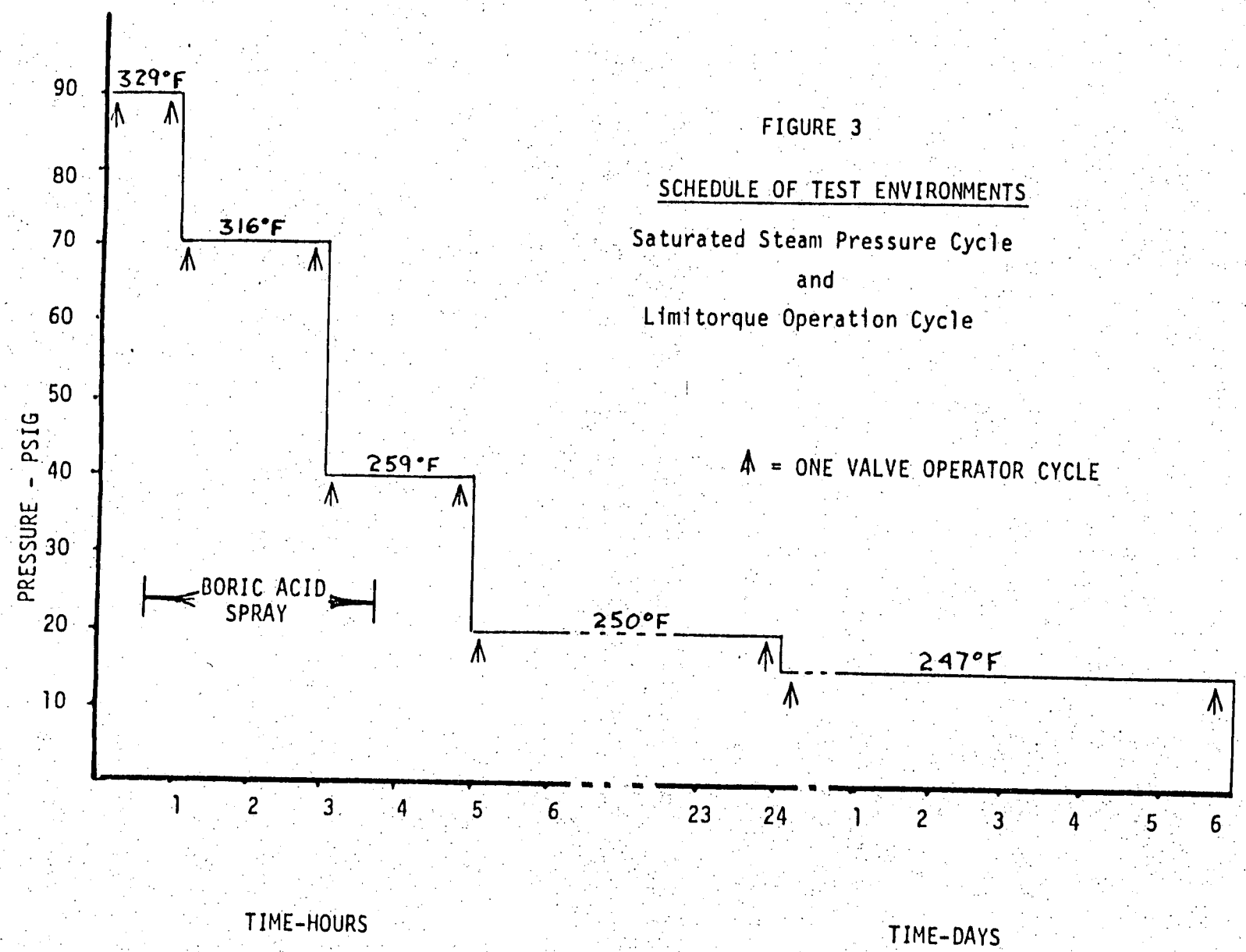


FIGURE 3

SCHEDULE OF TEST ENVIRONMENTS

Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

COMPONENT EVALUA[illegible] WORKSHEET

EQUIPMENT DESCRIPTION		ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
		PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM:	Core Spray	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
PLANT I.D. NO.:	FT 14-40 (A,B)	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			Note 1
COMPONENT:	Flow Transmitter	PRESSURE (PSIG)			Reference 3			Note 1
MANUFACTURER:	GE	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
MODEL NO.:	553	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
FUNCTION:	Indication	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
ACCURACY:	N/A	AGING	Not Required		Note 2			Note 1
SERVICE:	Core Spray Loop Flow	SUBMERGENCE	NA	NA	NA	NA	NA	NA
LOCATION:	RHR Pump Room							

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: See Below COMPONENT: Differential Pressure Indicating Switch MANUFACTURER: Barton Instrument Company MODEL NO.: 288A FUNCTION: Isolate HPCI Steam Line ACCURACY: Spec: ± 2% SERVICE: dPIS 23-76 (A, B) 23-77 (A, B) LOCATION: Inst. Rack C-122	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	(Accident Profile B.10)		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: See Below COMPONENT: Temperature Switch MANUFACTURER: Fenwal Inc. MODEL NO.: 17023-6 FUNCTION: Isolate HPCI Steam Line ACCURACY: Spec: ± 2% SERVICE: TS 23-101(A-D) TS 23-102(A-D) LOCATION: HPCI Room	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: See Below COMPONENT: Temperature Switch MANUFACTURER: Fenwal Inc. MODEL NO.: 17023-6 FUNCTION: Isolate HPCI Steam Line ACCURACY: Spec: ± 2% SERVICE: TS 23-103 (A-D) 23-104 (A-D)	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.5 and B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
LOCATION: B, C, D - HPCI Room A - Torus Compartment	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: LS 23-74, 75 COMPONENT: Level Switch MANUFACTURER: Robertshaw MODEL NO.: SL-412-A1 FUNCTION: HPCI Pump Suction Control ACCURACY: Spec.: ± 5% SERVICE: CST Level LOCATION: Reactor Bldg. 935' Elev. W	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO. NA COMPONENT: Ramp Generator MANUFACTURER: Woodward Governor Co MODEL NO.: 8271-083 FUNCTION: Speed Control ACCURACY: NA SERVICE: NA LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: NA COMPONENT: Transducer MANUFACTURER: Woodward Governor Co MODEL NO.: R 8250-133 (EGR) FUNCTION: Turbine Speed Control ACCURACY: NA SERVICE: Electro-Hydraulic Actuator LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: LS 23-91 (A, B) COMPONENT: Level Switch MANUFACTURER: Magnetrol, Inc. MODEL NO.: 249-C FUNCTION: HPCI Pump Suction Control ACCURACY: Spec: ± 5% SERVICE: Torus Level LOCATION: Torus Compartment	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: NA COMPONENT: Governor MANUFACTURER: Woodward Governor Co MODEL NO.: 8270-811 (EGM) FUNCTION: Turbine Speed Control ACCURACY: NA SERVICE: NA LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: National Acme (NAMCO) MODEL NO.: EA170 34101 FUNCTION: Control Interlock ACCURACY: NA SERVICE: NA LOCATION: HPCI Room	OPERATING TIME	8 hours	200 hrs.	FSAR Section 14.10.1.3	Reference 11	Simultaneous Test	Note 1
	TEMPERATURE (°F)	(Accident Profile B.6)	200°F	Reference 3	Reference 11	Simultaneous Test	Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4	2.04 (10^8)	FSAR Section 14.10.1.3	Reference 11	Sequential Test	None
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUA ON WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFI-CATION METHOD	OUTSTAND-ING ITEMS
	PARAMETER	SPECIFI-CATION	QUALIFI-CATION	SPECIFI-CATION	QUALIFI-CATION		
SYSTEM: HPCI PLANT I.D. NO.: See Below COMPONENT: Valve Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 16AMK11 FUNCTION: Valve Actuator ACCURACY: NA SERVICE: MO-2061 2062 2063 LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFI-CATION METHOD	OUTSTAND-ING ITEMS
	PARAMETER	SPECIFI-CATION	QUALIFI-CATION	SPECIFI-CATION	QUALIFI-CATION		
SYSTEM: HPCI PLANT I.D. NO.: NA COMPONENT: Magnetic Pick-Up MANUFACTURER: Woodward Governor Co MODEL NO.: 1680-622 FUNCTION: Speed Sensor ACCURACY: NA SERVICE: NA LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFI-CATION METHOD	OUTSTAND-ING ITEMS
	PARAMETER	SPECIFI-CATION	QUALIFI-CATION	SPECIFI-CATION	QUALIFI-CATION		
SYSTEM: HPCI PLANT I.D. NO. P-217 COMPONENT: Motor MANUFACTURER: Baldor MODEL NO.: 810-40-404 FUNCTION: NA ACCURACY: NA SERVICE: Motor for Auxiliary Oil Pump LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUA N WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: PS 23-84 COMPONENT: Pressure Switch MANUFACTURER: Mercoid Corporation MODEL NO.: DAW-443-4132-R26E FUNCTION: Turbine Trip ACCURACY: Spec: ± 2% SERVICE: NA LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: FT 23-82 COMPONENT: Flow Transmitter MANUFACTURER: General Electric MODEL NO.: 553 FUNCTION: Flow Control ACCURACY: Spec: ± 1% SERVICE: NA LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR Section 14. 10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)						Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: FS 23-78 COMPONENT: Flow Switch MANUFACTURER: Barton Instrument Company MODEL NO.: 289 FUNCTION: Pump Minimum Flow Valve Control ACCURACY: Spec: ± 5% SERVICE: NA LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: SV 2065 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: Catalog No. T-HT-83212 FUNCTION: Pump Minimum Flow Valve Control ACCURACY: NA SERVICE: NA LOCATION: HPCI Room	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: MO 2068 COMPONENT: Valve Operator MANUFACTURER: Limitorque MODEL NO.: SMB-4 FUNCTION: Actuate Injection Valve ACCURACY: NA SERVICE: NA LOCATION: Steam Chase	OPERATING TIME	8 hours	8 hours	FSAR Section 14.10.1.3	Reference 10	Simultaneous Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.3)		Reference 3	Reference 10	Simultaneous Test	None
	PRESSURE (PSIG)			Reference 3	Reference 10	Simultaneous Test	None
	RELATIVE HUMIDITY (%)	100	100	GE Spec 257HA345AF	Reference 10	Simultaneous Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

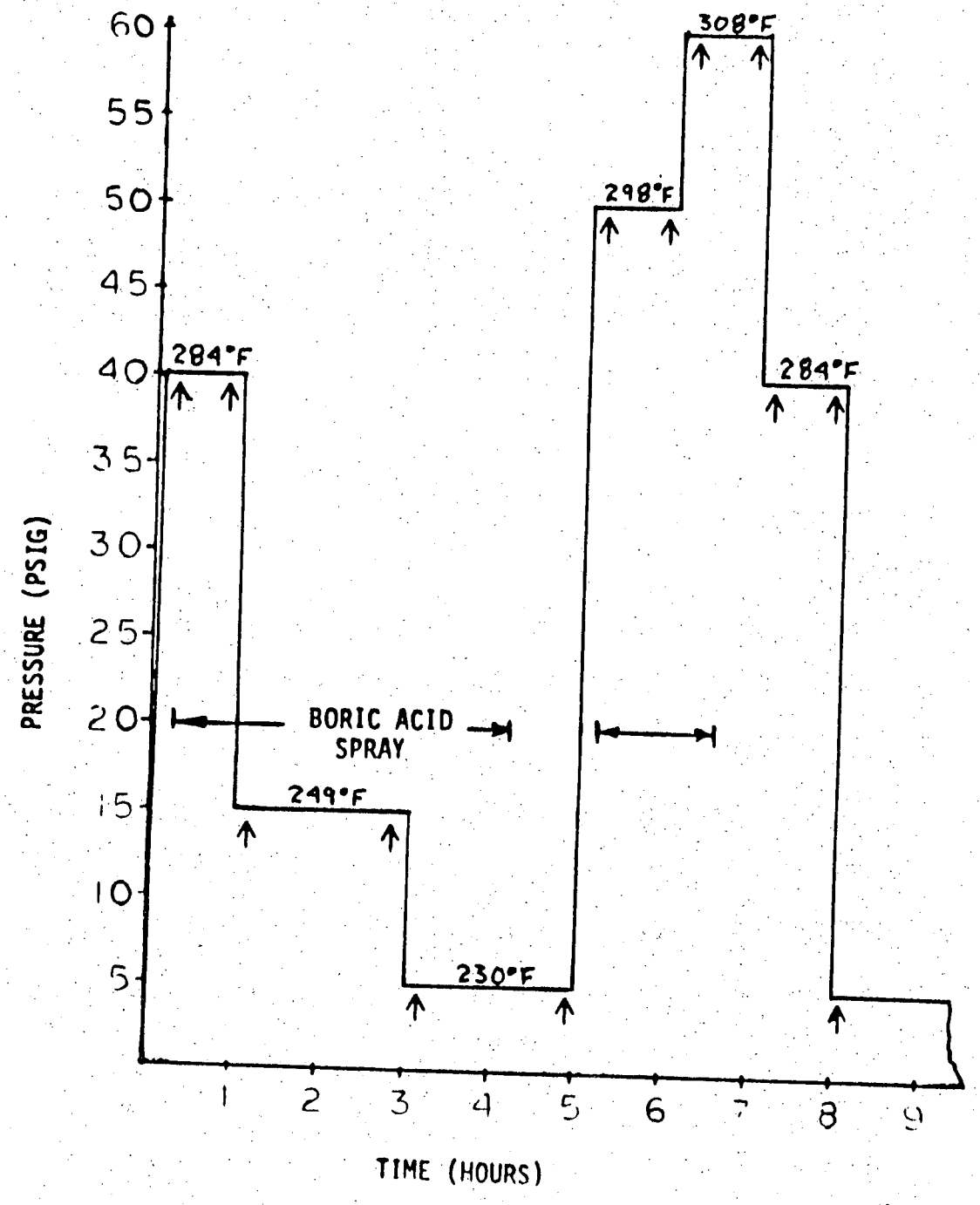


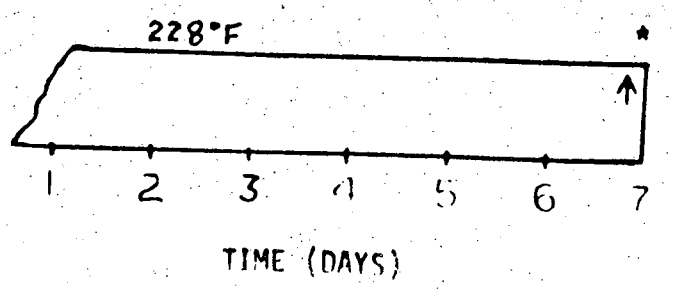
Figure 3

Schedule of Test Environments

Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

↑ = One Valve Operator Cycle

*Limitorque failed to operate.



CONPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: See Below COMPONENT: Valve Operator MANUFACTURER: Limitorque MODEL NO.: SMB FUNCTION: Actuate Valve ACCURACY: NA SERVICE: MO-2036, 2067, 2071 LOCATION: HPCI Room	OPERATING TIME	8 hours	8 hours	FSAR Section 14. 10.1.3	Reference 10	Simultaneous Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3	Reference 10	Simultaneous Test	Note 1
	PRESSURE (PSIG)			Reference 3	Reference 10	Simultaneous Test	Note 1
	RELATIVE HUMIDITY (%)	100	100	GE Spec 257HA345AF	Reference 10	Simultaneous Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

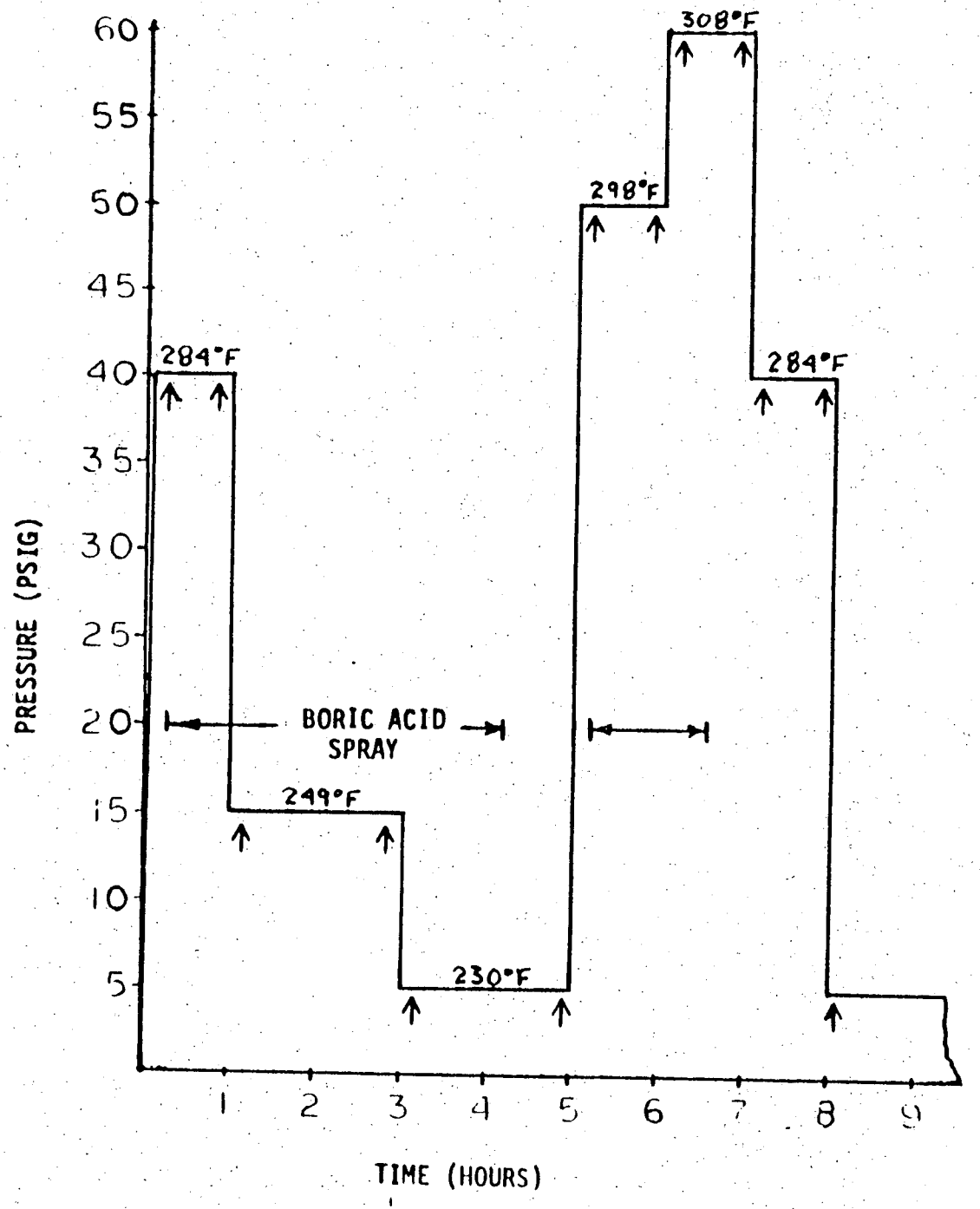


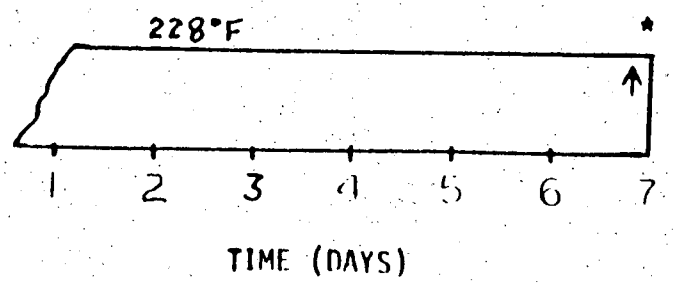
Figure 3

Schedule of Test Environments

Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

↑ = One Valve Operator Cycle

*Limitorque failed to operate.



COMPONENT EVALU ON WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFI-CATION METHOD	OUTSTAND-ING ITEMS
	PARAMETER	SPECIFI-CATION	QUALIFI-CATION	SPECIFI-CATION	QUALIFI-CATION		
SYSTEM: HPCI PLANT I.D. NO.: PS 23-97 (A, B) COMPONENT: Pressure Switch MANUFACTURER: Mercoid Corporation MODEL NO.: DA-7004-804 FUNCTION: Trip HPCI Turbine ACCURACY: Spec: ± 1% SERVICE: NA LOCATION: Inst. Rack C-120	OPERATING TIME	8 hours		FSAR Section 14. 10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HPCI PLANT I.D. NO.: PS 23-68 (A-D) COMPONENT: Pressure Switch MANUFACTURER: Barksdale Valve Co. MODEL NO.: B2T-M12SS FUNCTION: Shutdown HPCI ACCURACY: Spec: ± 2% SERVICE: NA LOCATION: Inst. Rack C-215	OPERATING TIME	8 hours		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	(Accident Profile B.10)		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA345AF			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: See Below COMPONENT: Differential Pressure Indicating Switch MANUFACTURER: Barton Instrument Co. MODEL NO.: 288 FUNCTION: Steamline Isolation ACCURACY: Spec: ± 2% SERVICE: dPIS 13-83, dPIS 13-84 LOCATION: Inst. Rack C214	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION		ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
		PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM:	RCIC	OPERATING TIME	10 mins		Note 4			Note 1
PLANT I.D. NO.:	See Below	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
COMPONENT:	Temperature Switch	PRESSURE (PSIG)			Reference 3			Note 1
MANUFACTURER:	Fenwal Electronics Co.	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
MODEL NO.:	I7023-6	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
FUNCTION:	Steamline Isolation	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
ACCURACY:	Spec: ± 2%	AGING	Not Required		Note 2			Note 1
SERVICE:	TS 13-79 A TS 13-80 A TS 13-81 A TS 13-82 A	SUBMERGENCE	NA	NA	NA	NA	NA	NA
LOCATION:	Torus Compartment							

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: See Below COMPONENT: Temperature Switch MANUFACTURER: Fenwal Electronics Company MODEL NO.: 17023-6 FUNCTION: Steamline Isolation ACCURACY: Spec: ± 2% SERVICE: TS 13-79 (A, B, C) TS 13-80 (A, B, C) TS 13-81 (A, B, C) TS 13-82 (A, B, C) LOCATION: RCIC Room	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: MO 3502 COMPONENT: Valve Motor Operator MANUFACTURER: Limitorque MODEL NO.: SMB-0 FUNCTION: Actuate Test Return Line Valve ACCURACY: NA SERVICE: NA	OPERATING TIME	8 hrs.	8 hrs.	Reference 4	Reference 10	Simultaneous Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3	Reference 10	Simultaneous Test	Note 1
	PRESSURE (PSIG)			Reference 3	Reference 10	Simultaneous Test	Note 1
	RELATIVE HUMIDITY (%)	100%	100%	GE Spec 257HA351AJ	Reference 10	Simultaneous Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
LOCATION: Torus Area	AGING	Not Required		Note 2			Note 1
FLOOD LEVEL ELEV: ABOVE FLOOD LEVEL: Yes ____ No ____	SUBMERGENCE	NA	NA	NA	NA	NA	NA

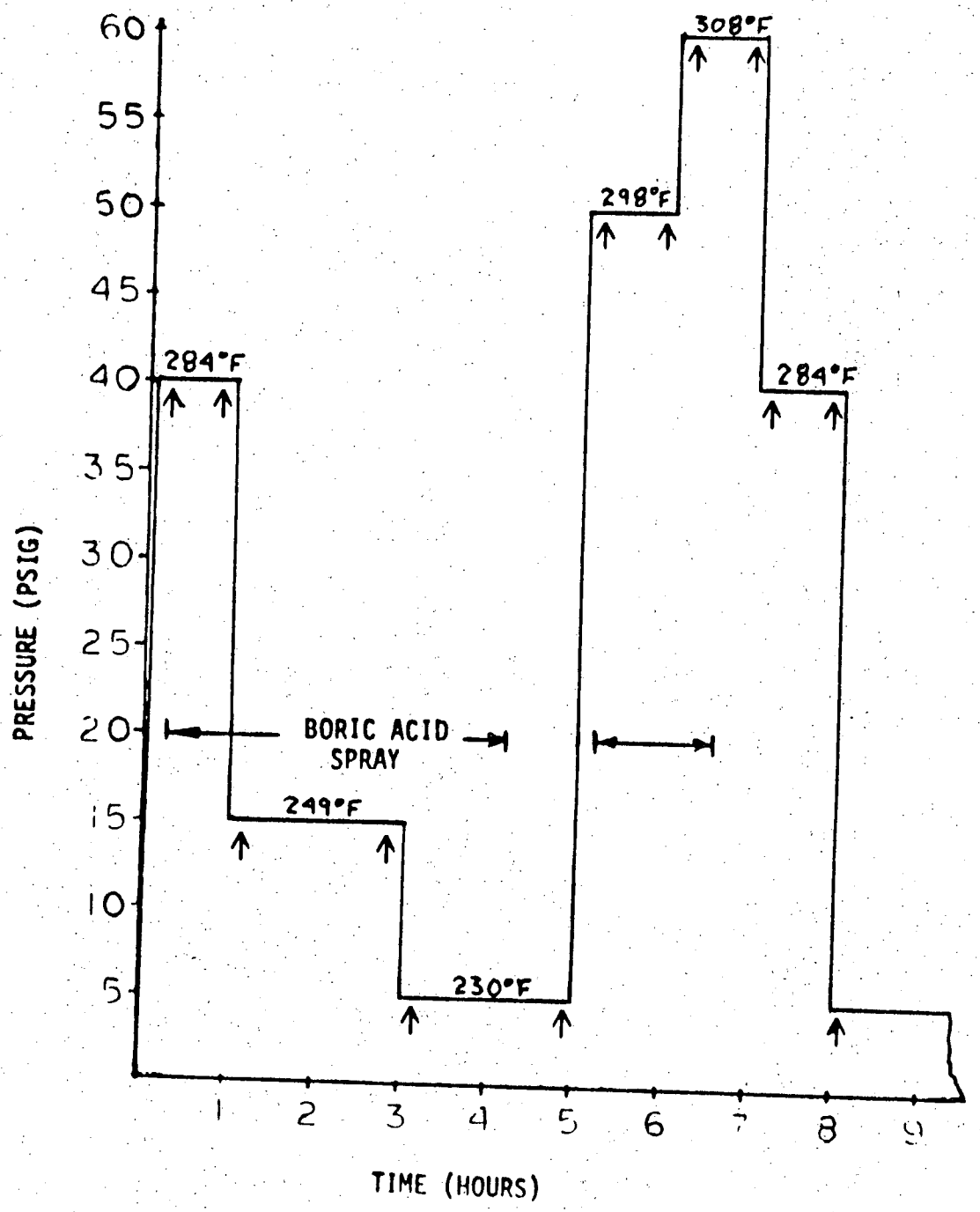


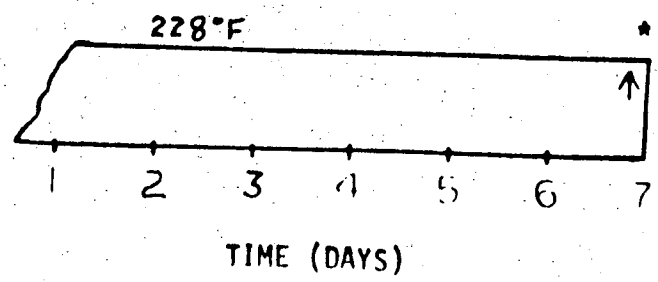
Figure 3

Schedule of Test Environments

Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

↑ = One Valve Operator Cycle

*Limitorque failed to operate.



COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: PT 13-70 COMPONENT: Pressure Transmitter MANUFACTURER: GE MODEL NO.: 551 FUNCTION: Indication ACCURACY: Spec: ± 1% Span SERVICE: RCIC Turbine Exhaust Pressure LOCATION: RCIC Room Inst. Rack C-128	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION		ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
		PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM:	RCIC	OPERATING TIME	8 hrs.		Reference 4			Note 1
PLANT I.D. NO.	PT 13-65	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			Note 1
COMPONENT:	Pressure Transmitter	PRESSURE (PSIG)			Reference 3			Note 1
MANUFACTURER:	GE	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			Note 1
MODEL NO.:	551	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
FUNCTION:	Indication	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
ACCURACY:	Spec: ± 1% Span	AGING	Not Required		Note 2			Note 1
SERVICE:	RCIC Pump Suction Pressure	SUBMERGENCE	NA	NA	NA	NA	NA	NA
LOCATION:	RCIC Room Instrument Rack C-128							

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: PT 13-60 COMPONENT: Pressure Transmitter MANUFACTURER: GE MODEL NO.: 551 FUNCTION: Indication ACCURACY: Spec: ± 1% Span SERVICE: RCIC Pump Discharge Pressure LOCATION: RCIC Room Inst. Rack C-128	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (accident Profile B.9)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: PT 13-68 COMPONENT: Pressure Transmitter MANUFACTURER: GE MODEL NO.: 551 FUNCTION: Indication ACCURACY: Spec: ± 1% Span SERVICE: RCIC Turbine Steam Supply Pressure LOCATION: RCIC Room Inst. Rack C-128	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: MO 2107 COMPONENT: Valve Motor Operator MANUFACTURER: Limitorque MODEL NO.: SMB-00 FUNCTION: Actuate Injection Valve ACCURACY: NA SERVICE: NA LOCATION: Steam Chase	OPERATING TIME	8 hrs.	8 hrs.	Reference 4	Reference 10	Simultaneous Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.3)		Reference 3	Reference 10	Simultaneous Test	None
	PRESSURE (PSIG)			Reference 3	Reference 10	Simultaneous Test	None
	RELATIVE HUMIDITY (%)	100%	100%	GE Spec 257HA351AJ	Reference 10	Simultaneous Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

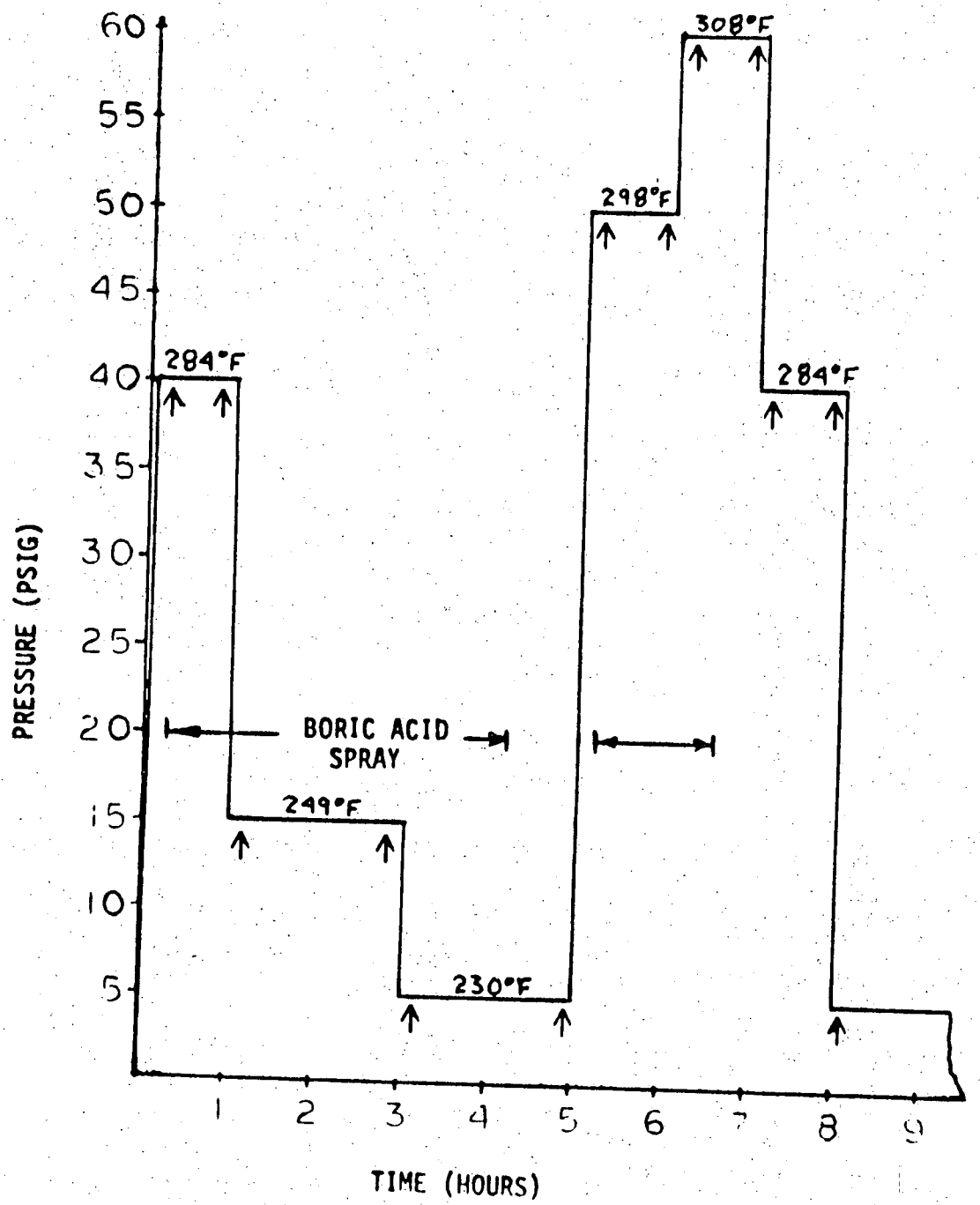


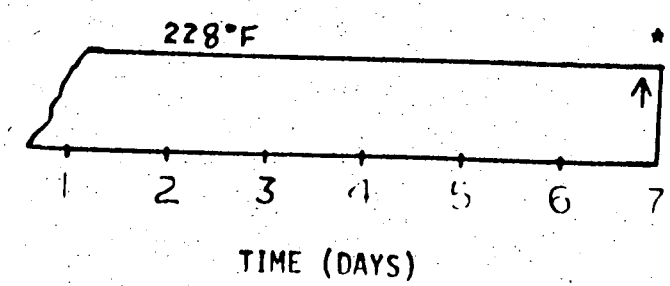
Figure 3

Schedule of Test Environments

Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

↑ = One Valve Operator Cycle

*Limitorque failed to operate.



COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO. N/A COMPONENT: Magnetic Pick-Up MANUFACTURER: Woodward Governor Co. MODEL NO.: 1680-622 FUNCTION: Speed Sensor ACCURACY: NA SERVICE: NA LOCATION: RCIC Room	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: LT 1358, 1359 COMPONENT: Level Transmitter MANUFACTURER: GE MODEL NO.: 555 FUNCTION: Indication ACCURACY: SERVICE: Condensate Storage Tank Level LOCATION: West Wall Reactor Building Elev. 935'	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: NA COMPONENT: EGM MANUFACTURER: Woodward Governor Co. MODEL NO.: 8270-849 FUNCTION: Speed Control ACCURACY: NA SERVICE: NA LOCATION: RCIC Room	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: NA COMPONENT: Electro-Hydraulic Transducer (EGR) MANUFACTURER: Woodward Governor Co. MODEL NO.: A 8250-133 FUNCTION: Speed Control ACCURACY: NA SERVICE: NA LOCATION: RCIC Room	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257UA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	
SYSTEM:	RCIC
PLANT I.D. NO.:	PS 13-87 (A-D)
COMPONENT:	Pressure Switch
MANUFACTURER:	Meletron Corp.
MODEL NO.:	372-65549A
FUNCTION:	Shutdown Turbine
ACCURACY:	Spec: ± 2%
SERVICE:	Turbine Steam Supply Pressure
LOCATION:	Inst. Rack C214

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	8 hrs.		Reference 4			Note 1
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			"
PRESSURE (PSIG)			"			"
RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			"
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: PS 13-72 (A, B) COMPONENT: Pressure Switch MANUFACTURER: Barksdale Co. MODEL NO.: D2H-M15055 FUNCTION: Turbine Trip ACCURACY: Spec: ± 1% SERVICE: Turbine Exhaust Pressure LOCATION: RCIC Room Inst. Rack C128	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351A.I			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

A1

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: See Below COMPONENT: Valve Motor Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 12A/EC FUNCTION: Actuate Pump Suction Line Valves ACCURACY: NA SERVICE: MO-2100, 2101, 2102 LOCATION: RCIC Room	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257DA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION		ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
		PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM:	RCIC	OPERATING TIME	8 hrs.	8 hrs.	Reference 4	Reference 10	Simultaneous Test	None
PLANT I.D. NO.:	See Below	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3	Reference 10	Simultaneous Test	Note 1
COMPONENT:	Valve Motor Operator	PRESSURE (PSIG)			Reference 3	Reference 10	Simultaneous Test	Note 1
MANUFACTURER:	Limitorque	RELATIVE HUMIDITY (%)	100%	100%	GE Spec 257HA351AJ	Reference 10	Simultaneous Test	None
MODEL NO.:	SMB-00	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
FUNCTION:	Actuate System Valves	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
ACCURACY:	NA	AGING	Not Required		Note 2			Note 1
SERVICE:	MO 2106 MO 2078	SUBMERGENCE	NA	NA	NA	NA	NA	NA
LOCATION:	RCIC Room							

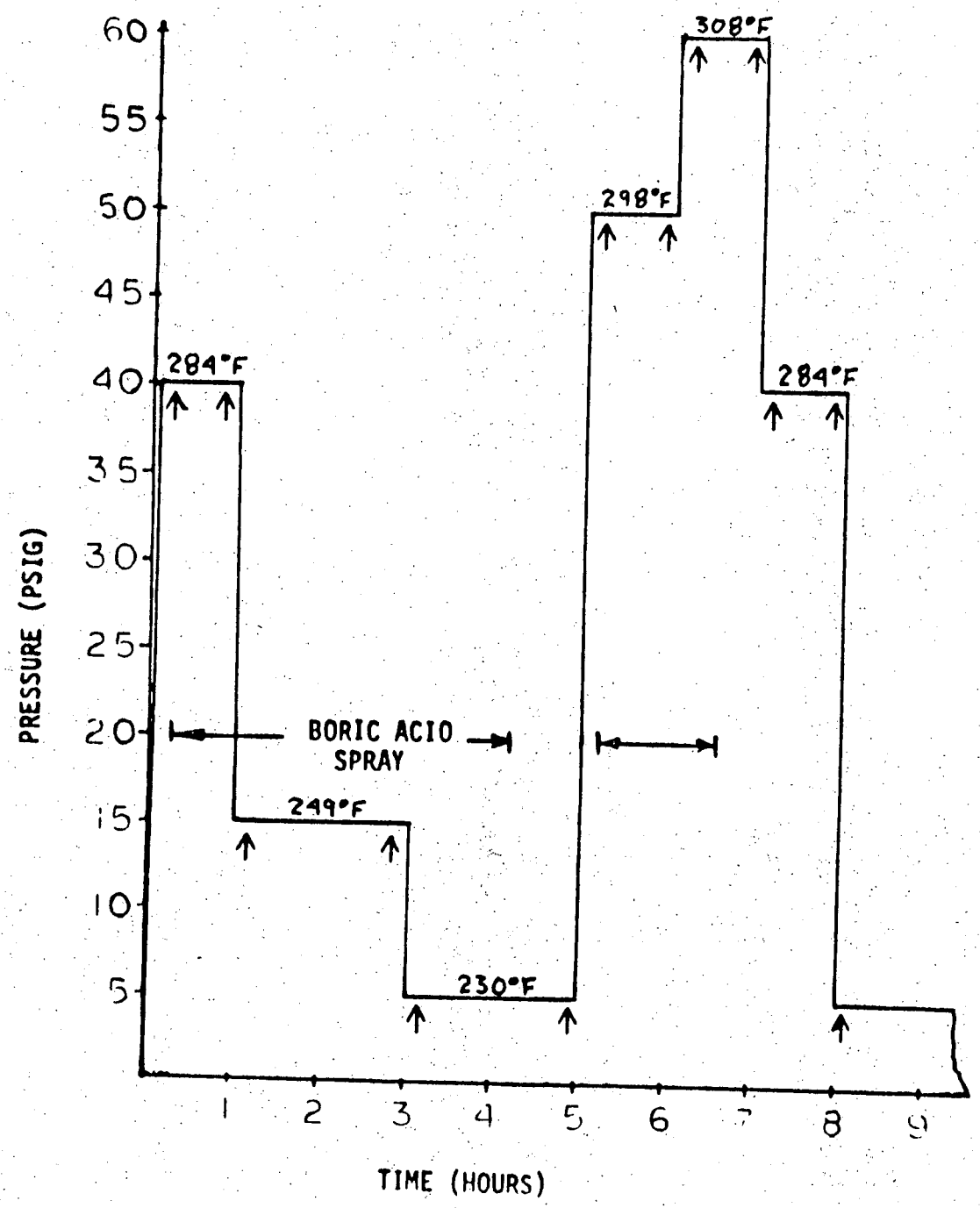


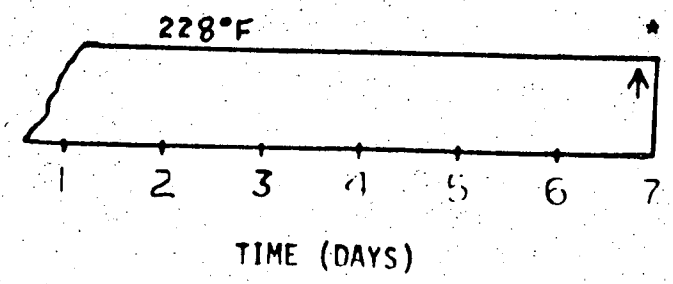
Figure 3

Schedule of Test Environments

Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

↑ = One Valve Operator Cycle

*Limitorque failed to operate.



COMPONENT EVALUATION WORKSHEET

A1

EQUIPMENT DESCRIPTION	
SYSTEM:	RCIC
PLANT I.D. NO.:	MO 2110
COMPONENT:	Valve Motor Operator
MANUFACTURER:	Limitorque
MODEL NO.:	SMB-2
FUNCTION:	Actuate Test Return Line Valve
ACCURACY:	NA
SERVICE:	NA
LOCATION:	Torus Area

ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
OPERATING TIME	8 hrs.	8 hrs.	Reference 4	Reference 10	Simultaneous Test	None
TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3	Reference 10	Simultaneous Test	Note 1
PRESSURE (PSIG)			Reference 3	Reference 10	Simultaneous Test	Note 1
RELATIVE HUMIDITY (%)	100%	100%	GE Spec 257HA351AJ	Reference 10	Simultaneous Test	None
CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
AGING	Not Required		Note 2			Note 1
SUBMERGENCE	NA	NA	NA	NA	NA	NA

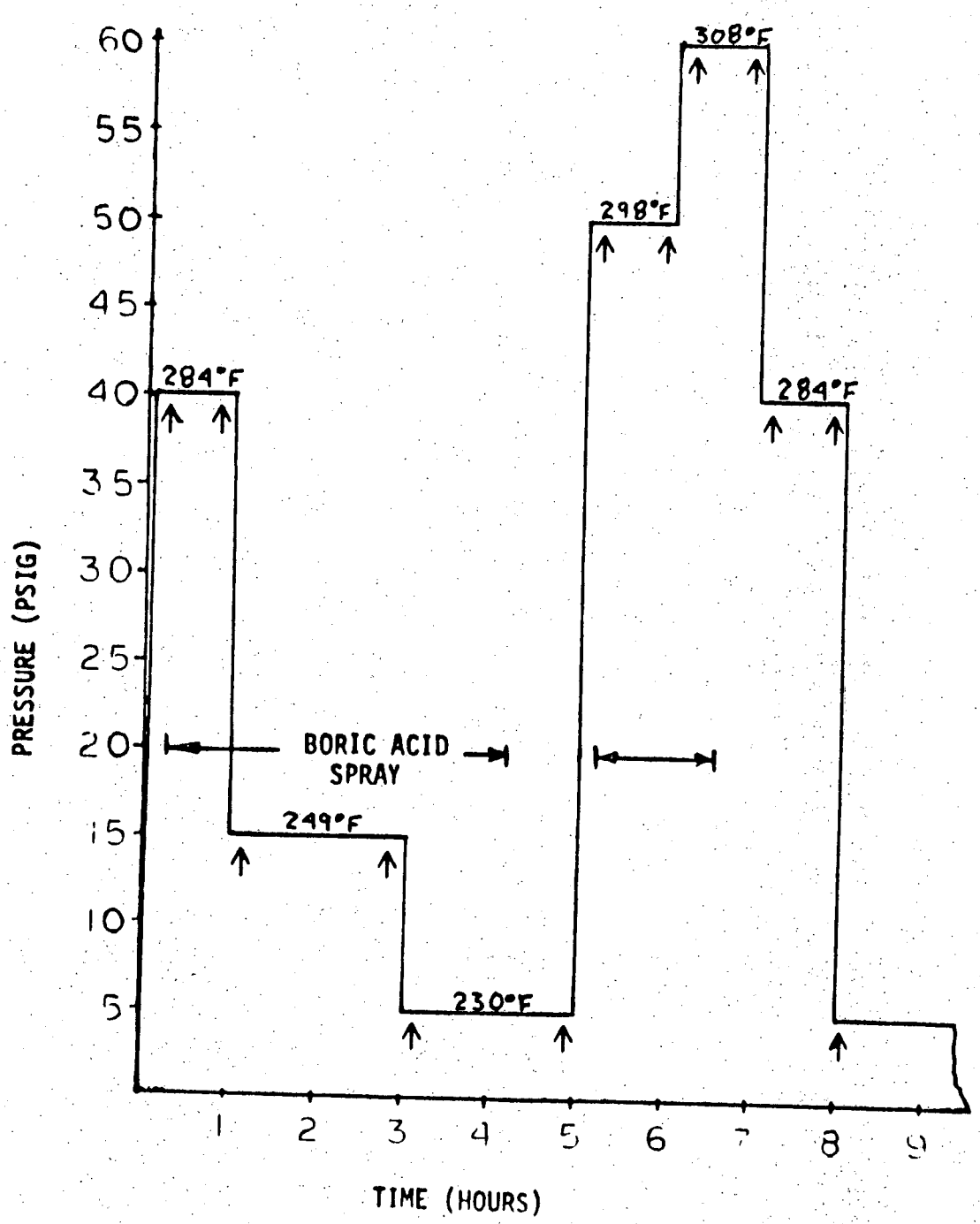


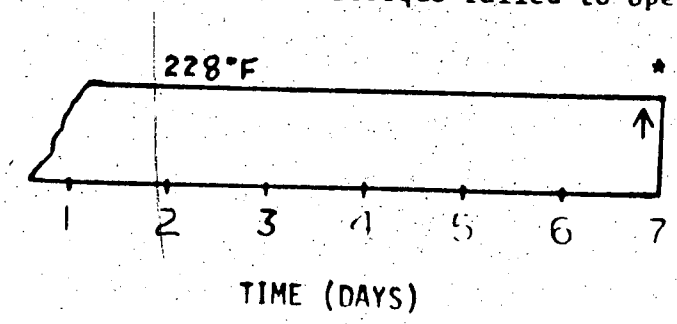
Figure 3

Schedule of Test Environments

Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

↑ = One Valve Operator Cycle

*Limitorque failed to operate.



COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: P210 COMPONENT: Pump Motor MANUFACTURER: GE MODEL NO.: 5CD14C10A 900000 FUNCTION: ACCURACY: SERVICE: N/A LOCATION: RCIC Room	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%	100%	GE Spec. 257HA351AJ			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required		Note 8			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUA WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFI-CATION METHOD	OUTSTAND-ING ITEMS
	PARAMETER	SPECIFI-CATION	QUALIFI-CATION	SPECIFI-CATION	QUALIFI-CATION		
SYSTEM: RCIC PLANT I.D. NO.: SV 2104 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: CATALOG NO.: T-HT-83212 FUNCTION: Pump Minimum Flow Control ACCURACY: NA SERVICE: NA LOCATION: RCIC Room	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: FS 13-57 COMPONENT: Flow Switch MANUFACTURER: Barton MODEL NO.: 289 FUNCTION: Pump Minimum Flow Control ACCURACY: Spec: ± 5% SERVICE: Pump Flow LOCATION: RCIC Room Inst. Rack C128	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUA[illegible] WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: FT 13-58 COMPONENT: Flow Transmitter MANUFACTURER: General Electric MODEL NO.: 553 FUNCTION: Flow Control ACCURACY: Spec: ± 1% SERVICE: Pump Flow LOCATION: RCIC Room Inst. Rack C128	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351A.I			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: PS 13-67 COMPONENT: Pressure Switch MANUFACTURER: Mercoid Corp. MODEL NO.: DAW-443-4132-R26E FUNCTION: Turbine Trip ACCURACY: Spec: ± 2% SERVICE: Pump Suction Pressure LOCATION: RCIC Room Inst. Rack C128	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: P-211 COMPONENT: Motor MANUFACTURER: Continental Elec. MODEL NO.: D225X FUNCTION: NA ACCURACY: NA SERVICE: Motor for Vacuum Pump P-211 LOCATION: RCIC Room	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: RCIC PLANT I.D. NO.: NA COMPONENT: Ramp Generator MANUFACTURER: Woodward Governor Co. MODEL NO.: 8271-083 FUNCTION: Speed Control ACCURACY: NA SERVICE: NA LOCATION: RCIC Room	OPERATING TIME	8 hrs.		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			Note 1
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Atmosphere Control PLANT I.D. NO.: See Below COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: 8300C64 U FUNCTION: Valve Control ACCURACY: NA SERVICE: SV 2377 2896 2378 2381 2383 Containment Isolation LOCATION: Torus Compartment	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Atmosphere Control PLANT I.D. NO.: SV 2385 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: T-HT-831723 FUNCTION: Valve Control ACCURACY: NA SERVICE: Containment Isolation LOCATION: Reactor Building 980' Elev. W	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Atmosphere Control PLANT I.D. NO.: SV 2386, 2387 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: 8300C64U FUNCTION: Valve Control ACCURACY: NA SERVICE: Containment Isolation LOCATION: Reactor Building 980' Elevation	OPERATING TIME	5 mins		GE Spec 22AI132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Atmosphere Control PLANT I.D. NO.: SV 2384 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: T-HT-8317A23 FUNCTION: Valve Control ACCURACY: NA SERVICE: Containment Isolation LOCATION: Torus Compartment	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Atmosphere Control PLANT I.D. NO.: SV-7440 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: T-HT-8317B23 FUNCTION: Valve Control ACCURACY: NA SERVICE: Containment Isolation LOCATION: Torus Compartment	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Atmosphere Control PLANT I.D. NO.: SV 2379, 2380	OPERATING TIME	NA	NA	Note 10	NA	NA	NA
COMPONENT: Solenoid Valve MANUFACTURER: ASCO	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (NA)		Note 11	NA	NA	NA
MODEL NO.: 8262A212 FUNCTION: Valve Control	PRESSURE (PSIG)			"	NA	NA	NA
ACCURACY: NA SERVICE: Containment Vacuum Relief	RELATIVE HUMIDITY (%)	NA	NA	"	NA	NA	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
LOCATION: Torus Compartment	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Atmosphere Control PLANT I.D. NO.: dPS 2572, 2573	OPERATING TIME	NA	NA	Note 10	NA	NA	NA
COMPONENT: Differential Pressure Switch MANUFACTURER: Barton	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (NA)		Note 11	NA	NA	NA
MODEL NO.: 289A FUNCTION: Valve Control	PRESSURE (PSIG)			"	NA	NA	NA
ACCURACY: 5%	RELATIVE HUMIDITY (%)	NA	NA	"	NA	NA	NA
SERVICE: Containment Vacuum Relief	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
LOCATION: Reactor Building 935' Elev E	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: See Below COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: S/N 62530S T-HT-831723 FUNCTION: Valve Control ACCURACY: NA SERVICE: SV 2944 2979 2945 2982 (A,B) 2978 LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (NA)		NA	NA	Note 13	NA
	PRESSURE (PSIG)			NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.9×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: LC-2 (A,B) COMPONENT: Fused Disconnect MANUFACTURER: Cutler Hammer MODEL NO.: 4105H311H FUNCTION: NA ACCURACY: NA SERVICE: Unit Heater Switch LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.7×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: FS 2950, 2951 COMPONENT: Flow Switch MANUFACTURER: McDonnell & Miller MODEL NO.: AF15 FUNCTION: Heater Control ACCURACY: SERVICE: LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.9×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: FT 2942, 2943 COMPONENT: Flow Transmitter MANUFACTURER: Leeds & Northrup MODEL NO.: 1912-2-10-0000 FUNCTION: Flow Control ACCURACY: SERVICE: SBGT System Flow LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.0×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: PS-3462 COMPONENT: Pressure Switch MANUFACTURER: Furnas MODEL NO.: FUNCTION: Auxiliary Air Compressor Control ACCURACY: SERVICE: NA LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.0×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: FT 2942, 2943 COMPONENT: Flow Transmitter MANUFACTURER: Leeds & Northrup MODEL NO.: 1912-2-10-0000 FUNCTION: Flow Control ACCURACY: SERVICE: SBGT System Flow LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.0×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: E-34 (A,B) COMPONENT: Unit Heater MANUFACTURER: ILG Industries MODEL NO.: H7133 FUNCTION: Room Heater ACCURACY: NA SERVICE: NA LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.9×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: K-11 COMPONENT: Starter MANUFACTURER: FURNAS MODEL NO.: 14BA32BC FUNCTION: NA ACCURACY: NA SERVICE: Auxiliary Air Compressor Motor Starter LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.0×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: K-11 COMPONENT: Line Switch MANUFACTURER: GE MODEL NO.: THN 3361 FUNCTION: NA ACCURACY: NA SERVICE: Auxiliary Air Compressor Disconnect LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.0×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: K-11 COMPONENT: Motor MANUFACTURER: GE MODEL NO.: 5K43KG2802 FUNCTION: NA ACCURACY: NA SERVICE: Aux. Air Compressor Motor LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.0×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: T1 COMPONENT: Transformer MANUFACTURER: Heavy Duty Elect. MODEL NO.: SZO FUNCTION: Unit Heater Control Power Transformer ACCURACY: NA SERVICE: NA LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.7×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: E/P 2942, 2943 COMPONENT: Electrical Pneumatic Transducer MANUFACTURER: Leeds & Northrup MODEL NO.: 10970-1 FUNCTION: Valve Control ACCURACY: SERVICE: Flow Control LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.0×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: TS 3368, 3369 COMPONENT: Temperature Switch MANUFACTURER: Chromalox Electric Heat MODEL NO.: AR2529 FUNCTION: ACCURACY: SERVICE: LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.9×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatmen PLANT I.D. NO. V-EF-17(A,B) COMPONENT: Motor MANUFACTURER: General Electric MODEL NO.: 5K254AK205 S/N 1431443 1431427 FUNCTION: NA ACCURACY: NA SERVICE: Motor for Standby Gas Treatment Fan V-EF-17A LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (NA)		NA	NA	Note 13	NA
	PRESSURE (PSIG)			NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7×10^6		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUA[illegible]N WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: LC-1 (A-B) COMPONENT: Contactor MANUFACTURER: Cutler Hammer MODEL NO.: 6-10-2 FUNCTION: NA ACCURACY: NA SERVICE: Unit Heater Contactor LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (NA)		NA	NA	Note 13	NA
	PRESSURE (PSIG)			NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.7×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: E-34 (A,B) COMPONENT: Thermostat MANUFACTURER: Honeywell MODEL NO.: T451A FUNCTION: Unit Heater Thermostats ACCURACY: SERVICE: NA LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	NA
	PRESSURE (PSIG)	NA		NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.9×10^7		FSAR Section 5.3.4			Note I
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: NA COMPONENT: Terminal Board MANUFACTURER: Allen-Bradley MODEL NO.: Bulletin 1492-CD3 FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	NA
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (NA)		NA	NA	Note 13	NA
	PRESSURE (PSIG)			NA	NA	"	NA
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	NA
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.7×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Standby Gas Treatment PLANT I.D. NO.: NA COMPONENT: Wire MANUFACTURER: General Electric MODEL NO.: SI-57275 FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: SBGT System Room	OPERATING TIME	NA	NA	Note 12	NA	NA	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		NA	NA	Note 13	None
	PRESSURE (PSIG)	NA		NA	NA	"	None
	RELATIVE HUMIDITY (%)	NA	NA	NA	NA	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.7×10^7		FSAR Section 5.3.4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Rx. Bldg. Cooling Wtr PLANT I.D. NO.: MO 1426 COMPONENT: Valve Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 14AMK11 FUNCTION: Actuate Containment Isolation Valve ACCURACY: NA SERVICE: NA LOCATION: Torus Compartment	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		"			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Water Cleanup PLANT I.D. NO.: MO 2399 COMPONENT: Valve Motor Operator MANUFACTURER: Rotork, Inc. MODEL NO.: 30A FUNCTION: Actuate Containment Isolation Valve ACCURACY: NA SERVICE: NA LOCATION: Reactor Building 970' Elev NW	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		"			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Water Cleanup PLANT I.D. NO.: MO 2398 COMPONENT: Valve Motor Operator MANUFACTURER: Limitorque MODEL NO.: SMB-00 FUNCTION: Actuate Containment Isolation Valve ACCURACY: NA SERVICE: NA LOCATION: Reactor Building 975' Elev. W	OPERATING TIME	5 mins	7 days	GE Spec 22A1132	Reference 8	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3	"	Simultaneous Test	None
	PRESSURE (PSIG)			Reference 3	"	Simultaneous Test	None
	RELATIVE HUMIDITY (%)	100%	100%	Reference 3	"	Simultaneous Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required	40 yrs	Note 2	Reference 9	Sequential Test	None
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

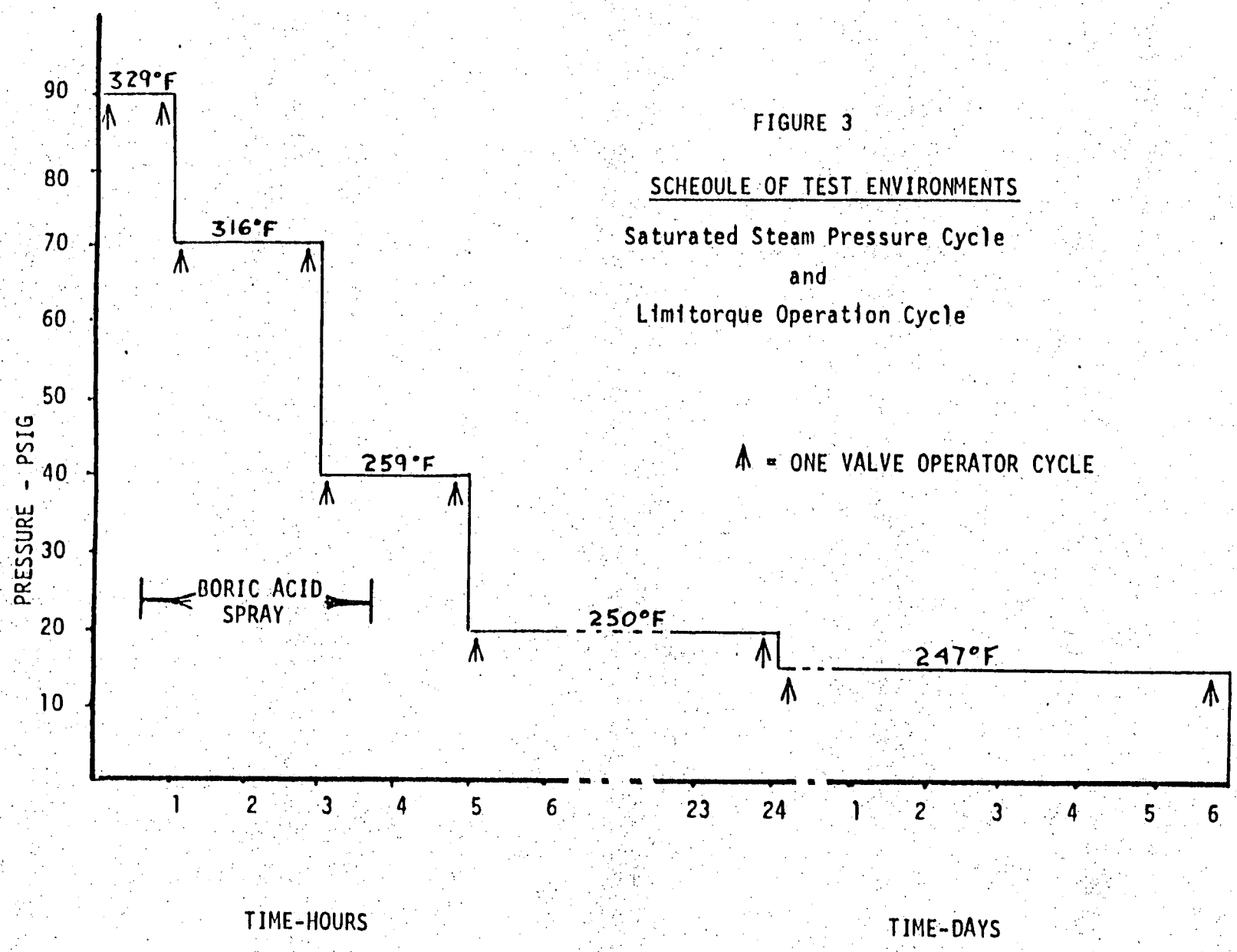


FIGURE 3

SCHEOULE OF TEST ENVIRONMENTS

Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Instrument Air PLANT I.D. NO.: SV 1478 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: T-HT-831723 FUNCTION: Valve Control ACCURACY: NA SERVICE: Containment Isolation LOCATION: Steam Chase	OPERATING TIME	10 hrs		GE Spec 21A1060AB			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.3)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Instrument Air PLANT I.D. NO.: SV-7956 COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: THT-8317B23 FUNCTION: Valve Control ACCURACY: NA SERVICE: Containment Isolation LOCATION: Torus Compartment	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Auto. Depressurization PLANT I.D. NO.: SV 2-71 (A-H) COMPONENT: Solenoid Valve MANUFACTURER: Automatic Valve Co. MODEL NO.: C-5450 FUNCTION: SRV Control ACCURACY: NA SERVICE: NA LOCATION: Containment	OPERATING TIME	10 hrs.	96 hrs.	GE Spec 21A1060AB	Reference 1	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	"	"	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	"	"	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Section 5.2.3.2	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	4.8×10^6	3×10^7	FSAR Table 14-10-4	"	"	None
	AGING	Not Required					Note 1,2
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

Test Conditions:

Temperature	Pressure	Time
340°F	65 psig	2 min.
340°F	45 psig	3 hrs.
320°F	45 psig	3 hrs.
250°F	25 psig	90 hrs.

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Protection PLANT I.D. NO.: PS 5-12 (A-D) COMPONENT: Pressure Switch MANUFACTURER: Static-O-Ring MODEL NO.: 12N-K4 FUNCTION: Reactor Scram/ Containment Isolation ACCURACY: Spec: ± .05 PSIG SERVICE: Drywell Pressure LOCATION: Inst Rack C-55, C-56	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		"			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Reactor Protection PLANT I.D. NO.; PS 5-14 (A-D) COMPONENT: Pressure Switch MANUFACTURER: Barksdale Co. MODEL NO.: B2T-A12SS FUNCTION: Reactor Scram Interlock ACCURACY: Spec: ± 30 psi SERVICE: Turbine First Stage Pressure LOCATION: Turb. Bldg- SE Corner	OPERATING TIME	10 mins		Note 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.2)					Note 1
	PRESSURE (PSIG)						Note 1
	RELATIVE HUMIDITY (%)	100%					Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 4	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Radwaste PLANT I.D. NO.: See Below COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: T-HT-8317 B23 FUNCTION: Actuate Containment Isolation Valve ACCURACY: NA SERVICE: SV 2541 (A, B) 2561 (A, B) Containment Isolation LOCATION: Torus Compartment	OPERATING TIME	5 mins		GE Spec 22AI132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Nitrogen Cntr. PLANT I.D. NO.: See Below COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: T-HT-831723 FUNCTION: Valve Control ACCURACY: NA SERVICE: SV 3267 3268 Containment Isolation LOCATION: Torus Compartment	OPERATING TIME	5 mins		CE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Nitrogen Cntrl PLANT I.D. NO.: SV 3269A COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: T-HT-831723 FUNCTION: Valve Control ACCURACY: NA SERVICE: Containment Isolation LOCATION: Reactor Building 935' Elev.	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Notel 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment Nitrogen Cntrl. PLANT I.D. NO.: See Below COMPONENT: Solenoid Valve MANUFACTURER: ASCO MODEL NO.: T-HT-831723 FUNCTION: Valve Control ACCURACY: NA SERVICE: SV 3305, 3306, 3307, 3308, 3309, 3310, 3311, 3312, 3313, 3314 Containment Isolation LOCATION: Reactor Building 935' Elevation	OPERATING TIME	5 mins		GE Spec 22A1132			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUA WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment PLANT I.D. NO.: PT-2994B COMPONENT: Pressure Transmitter MANUFACTURER: GE MODEL NO.: 552 FUNCTION: Indication ACCURACY: 5% SERVICE: Torus Pressure LOCATION: CRD Pump Room	OPERATING TIME	180 days		Note 5			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)					Note 1
	PRESSURE (PSIG)						Note 1
	RELATIVE HUMIDITY (%)	100%					Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment PLANT I.D. NO.: PT 7348 COMPONENT: Pressure Transmitter MANUFACTURER: GE MODEL NO.: 551 FUNCTION: Indication ACCURACY: 5% SERVICE: Drywell Wide Range Pressure LOCATION: Inst. Rack C-55	OPERATING TIME	180 days		Note 5			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.10)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		"			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Containment PLANT I.D. NO.: TE-2995, F, G COMPONENT: Temperature Element MANUFACTURER: Thermo-Electric MODEL NO.: CES16-2-516-T Assy: 607P-16-20 FUNCTION: Indication ACCURACY: 2°F SERVICE: Torus Temperature LOCATION: Torus Area	OPERATING TIME	180 days		Note 5			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		"			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUA[illegible] WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFI-CATION METHOD	OUTSTAND-ING ITEMS
	PARAMETER	SPECIFI-CATION	QUALIFI-CATION	SPECIFI-CATION	QUALIFI-CATION		
SYSTEM: Containment PLANT I.D. NO.: LT 2996 COMPONENT: Level Transmitter MANUFACTURER: Rosemount MODEL NO.: 1151DP4B22MB FUNCTION: Indication ACCURACY: 5% SERVICE: Torus Water Level LOCATION: Torus Area	OPERATING TIME	180 days	4 hours	Note 5	Reference 12	Simultaneous Test	Note 1
	TEMPERATURE (°F)	(Accident Profile B.5)	300°F	Reference 3	Reference 12	Simultaneous Test	Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: JX-105 (A,C,D) COMPONENT: Electrical Penetration MANUFACTURER: General Electric MODEL NO.: NSO-2, NSO-3, NSO-4 FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: Containment	OPERATING TIME	30 hrs.	69 hrs.	FSAR Figure 5-2-15	Reference 13	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	"	"	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	"	"	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Section 5.2.3.2	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (Rads)	3.3×10^7	4×10^7	FSAR Table 14-10-4	Reference 14	Sequential Test	None
	AGING	Not Required	Not Required				Note 2
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

TEST REQUIREMENTS

The electrical penetration test requirements are listed below:

1. Environmental Conditions based on a postulated design basis accident.

Test Conditions	1	2	3	4	5*
Temperature, °F	340	340	320	250	200
Pressure, psig	56	35	35	25	20
Relative Humidity%	100	100	100	100	100
Duration	45 sec	3 hr	6 hr	1 day	100 days

* This test condition conducted for 36 hours. Past testing showed that the penetration will sustain the fifth condition.

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Various PLANT I.D. NO.: See Below COMPONENT: Valve Operator MANUFACTURER: Limitorque MODEL NO.: SMB FUNCTION: Actuate Containment Isolation Valve ACCURACY: N/A SERVICE: MO-2029 2034 2027 2075 2397 2373 LOCATION: Containment	OPERATING TIME	5 min.	7 days	GE Spec 22AII32	Reference 8	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	"	"	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	"	"	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Section 5.2.3.2	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (Rads)	1×10^6	2×10^8	FSAR Table 14-10-4	Reference 6	Sequential Test	None
	AGING	Not Required	40 yrs.		Reference 9	"	None
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO	SUBMERGENCE	NA	NA	NA	NA	NA	NA

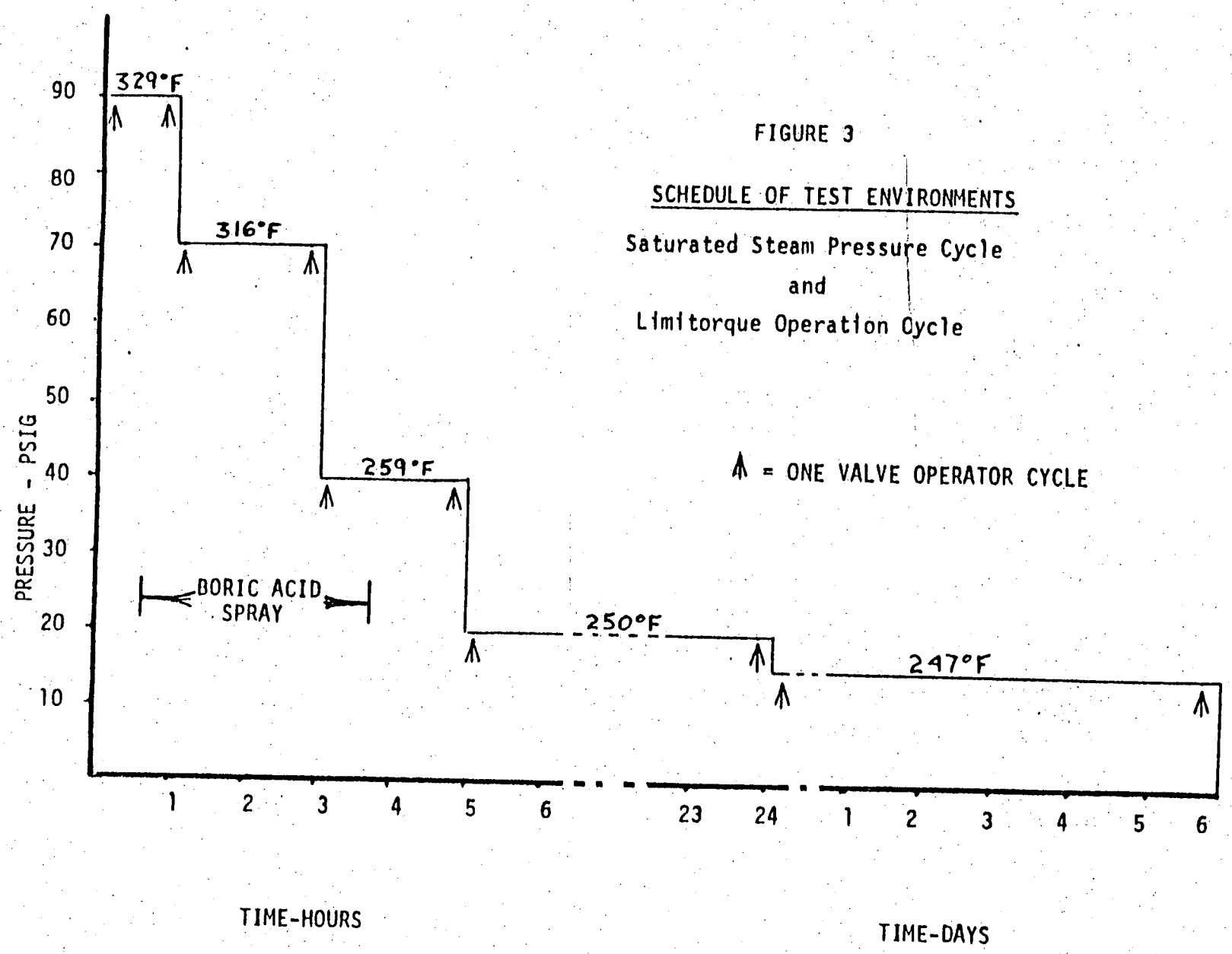


FIGURE 3

SCHEDULE OF TEST ENVIRONMENTS

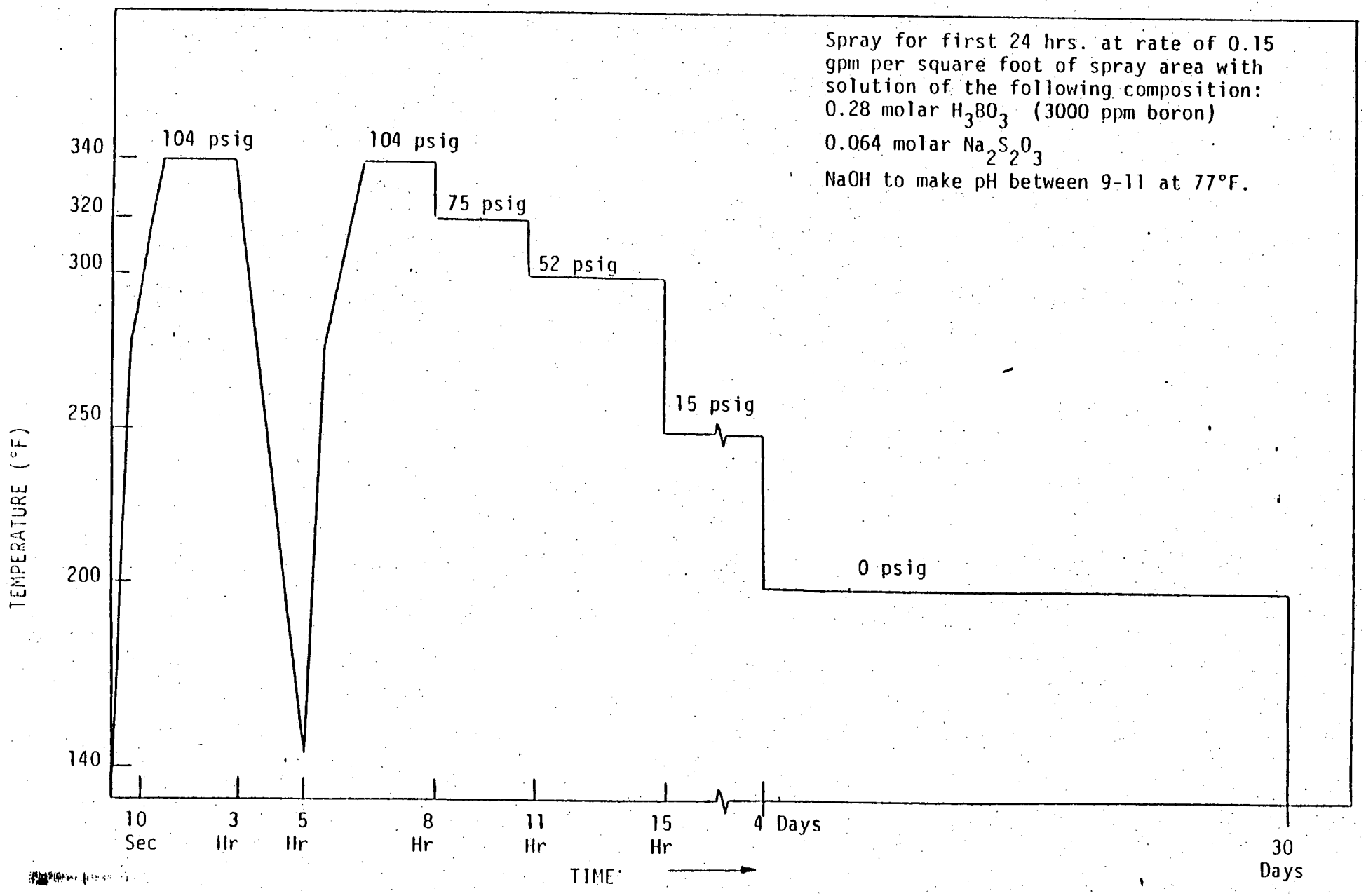
Saturated Steam Pressure Cycle
and
Limitorque Operation Cycle

⋀ = ONE VALVE OPERATOR CYCLE

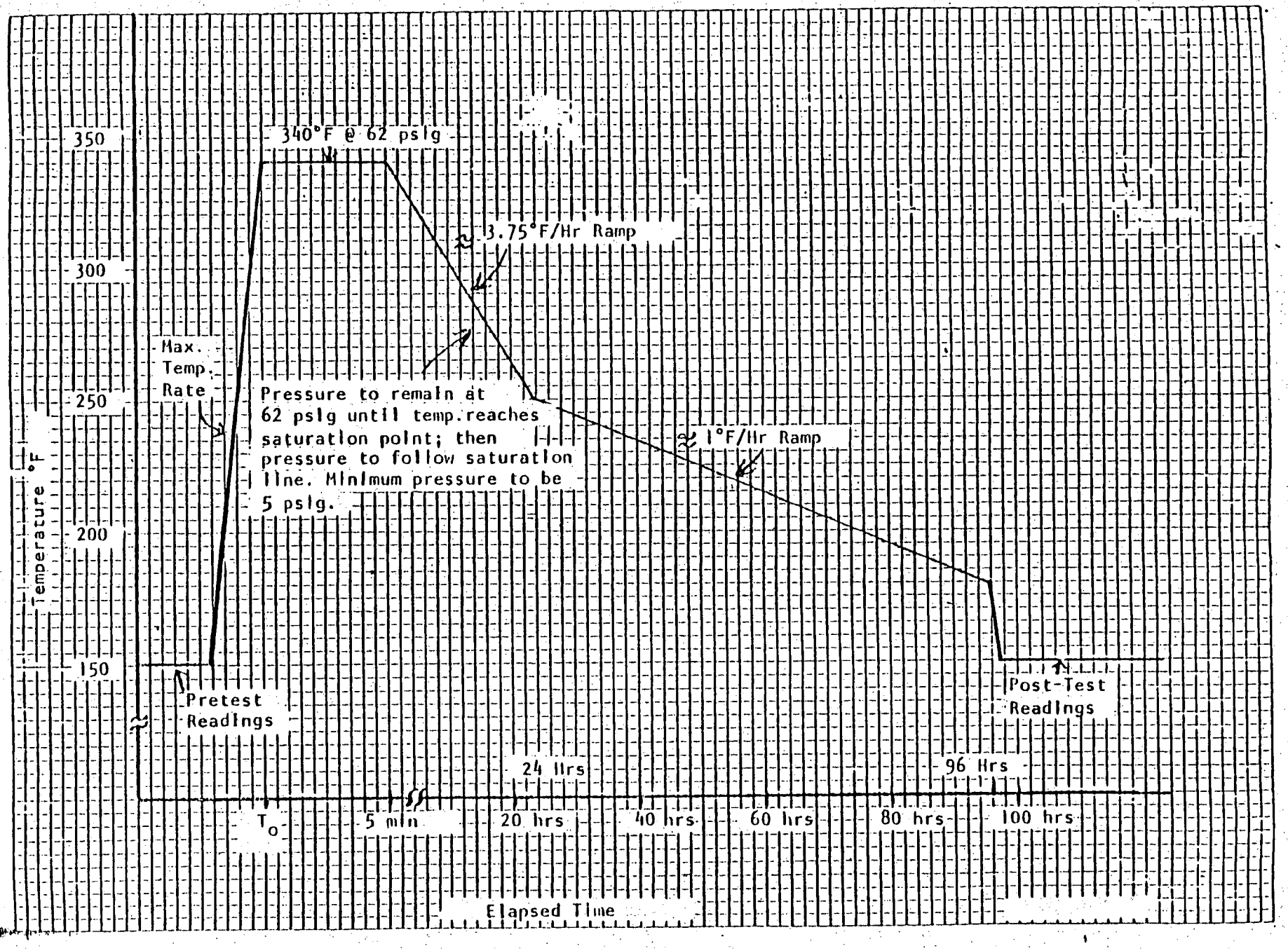
COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Field Splices MANUFACTURER: Raychem MODEL NO.: WCSF-N FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: Containment	OPERATING TIME	30 hrs.	96 hrs/ 30 days	FSAR Figure 5-2-15	Reference 16	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	"	"	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	"	"	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Section 5.2.3.2	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (Rads)	3.3×10^7	4×10^7 2×10^8	FSAR Table 14-10-4	"	"	None
	AGING	Not Required	40 yrs		"	"	None
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

LOCA Profile



LOCA PROFILE


350
300
250
200
150
Temperature °F
340°F @ 62 psig
≈ 3.75°F/Hr Ramp
Max. Temp. Rate
Pressure to remain at 62 psig until temp. reaches saturation point; then pressure to follow saturation line. Minimum pressure to be 5 psig.
≈ 1°F/Hr Ramp
Pretest Readings
Post-Test Readings
24 Hrs
96 Hrs
T_o
5 min
20 hrs
40 hrs
60 hrs
80 hrs
100 hrs
Elapsed Time

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Electrical Cable MANUFACTURER: General Electric MODEL NO.: SI-58109 FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: Containment	OPERATING TIME	30 hrs.	96 hrs.	FSAR FIGURE 5-2-15	Reference 16	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	"	"	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	"	"	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Section 5.2.3.2	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (Rads)	3.3×10^7	4×10^7	FSAR Table 14-10-4	"	"	None
	AGING	Not Required	40 yrs		"	"	None
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

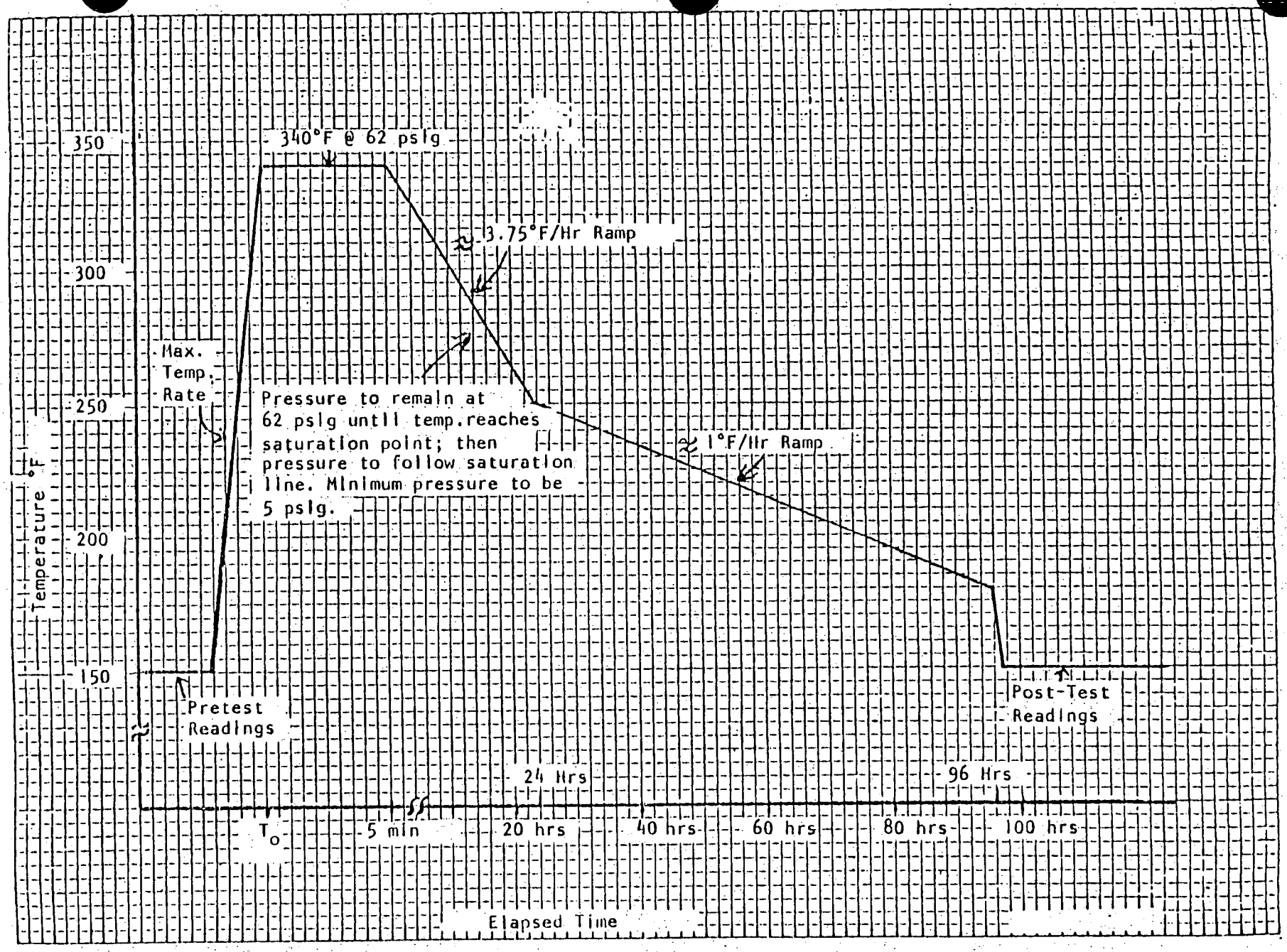
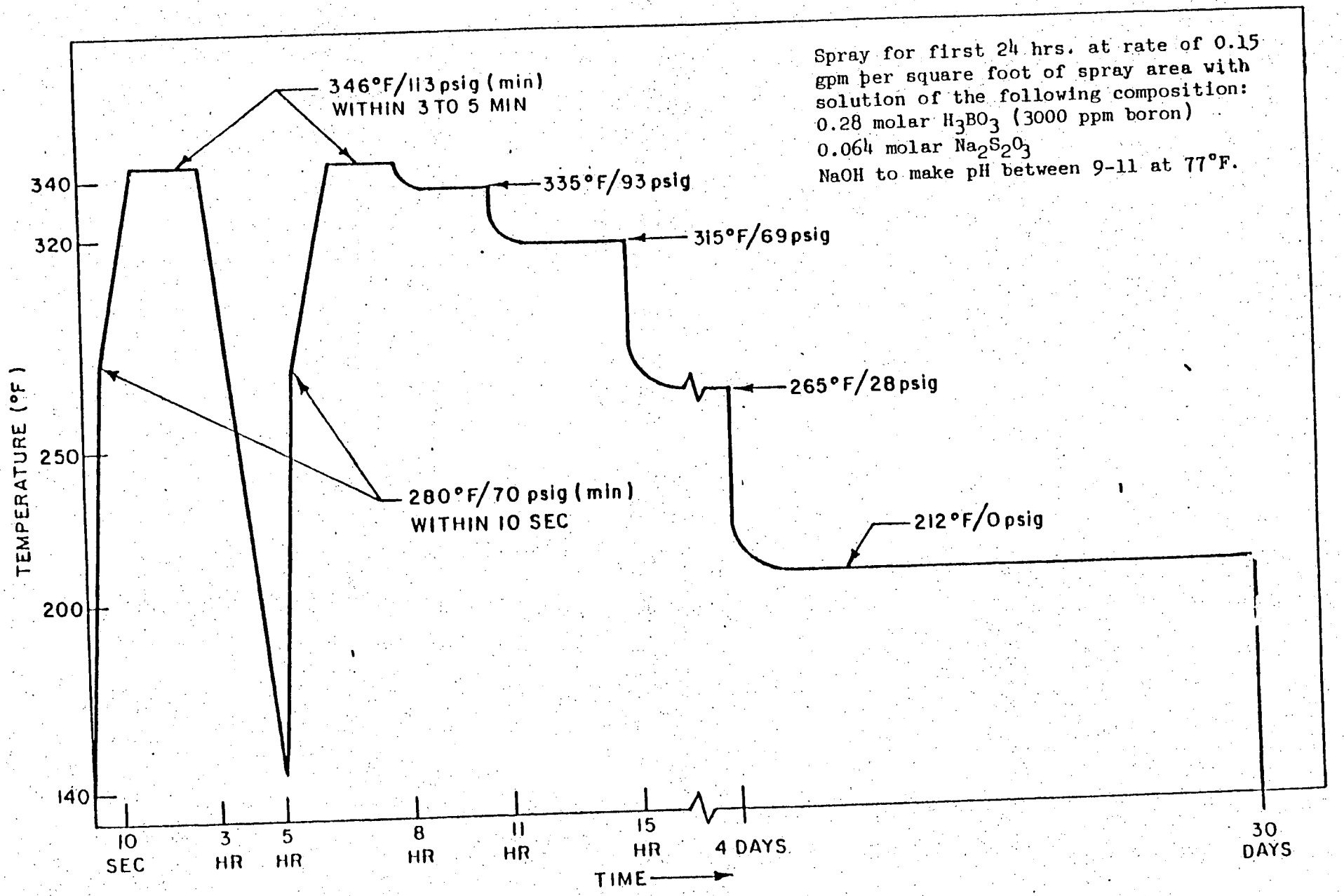


Figure 1. 4-Day LOCA Profile (Test Items 1A through 4A)

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Electrical Cable MANUFACTURER: Rockbestos MODEL NO.: Firewall III FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: Containment	OPERATING TIME	30 hrs	30 days	FSAR Figure 5-2-15	Reference 17	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.1 and B.2)		FSAR Figure 5-2-15	"	"	None
	PRESSURE (PSIG)			FSAR Figure 5-2-14	"	"	None
	RELATIVE HUMIDITY (%)	100	100	FSAR Figure 5.2.3.2	"	"	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	3.3×10^7	2×10^8	FSAR Table 14-10-4	"	"	None
	AGING	Not Required	40 yrs		"	"	None
FLOOD LEVEL ELEV: 922' ABOVE FLOOD LEVEL: YES X NO ___	SUBMERGENCE	NA	NA	NA	NA	NA	NA

LOCA Profile



LOCA PROFILE

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: Various PLANT I.D. NO.: See Below COMPONENT: Valve Operator MANUFACTURER: Limitorque MODEL NO.: SMB FUNCTION: Actuate Containment Isolation Valve ACCURACY: NA SERVICE: MO-2035, MO-2076, MO-2374 LOCATION: Steam Chase	OPERATING TIME	5 mins	7 days	GE Spec 22A1132	Reference 8	Sequential Test	None
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.3)		Reference 3	Reference 8	Sequential Test	None
	PRESSURE (PSIG)			Reference 3	Reference 8	Sequential Test	None
	RELATIVE HUMIDITY (%)	100	100	Reference 3	Reference 8	Sequential Test	None
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	1.4×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required	40 yrs.	Note 2	Reference 9	Sequential Test	None
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

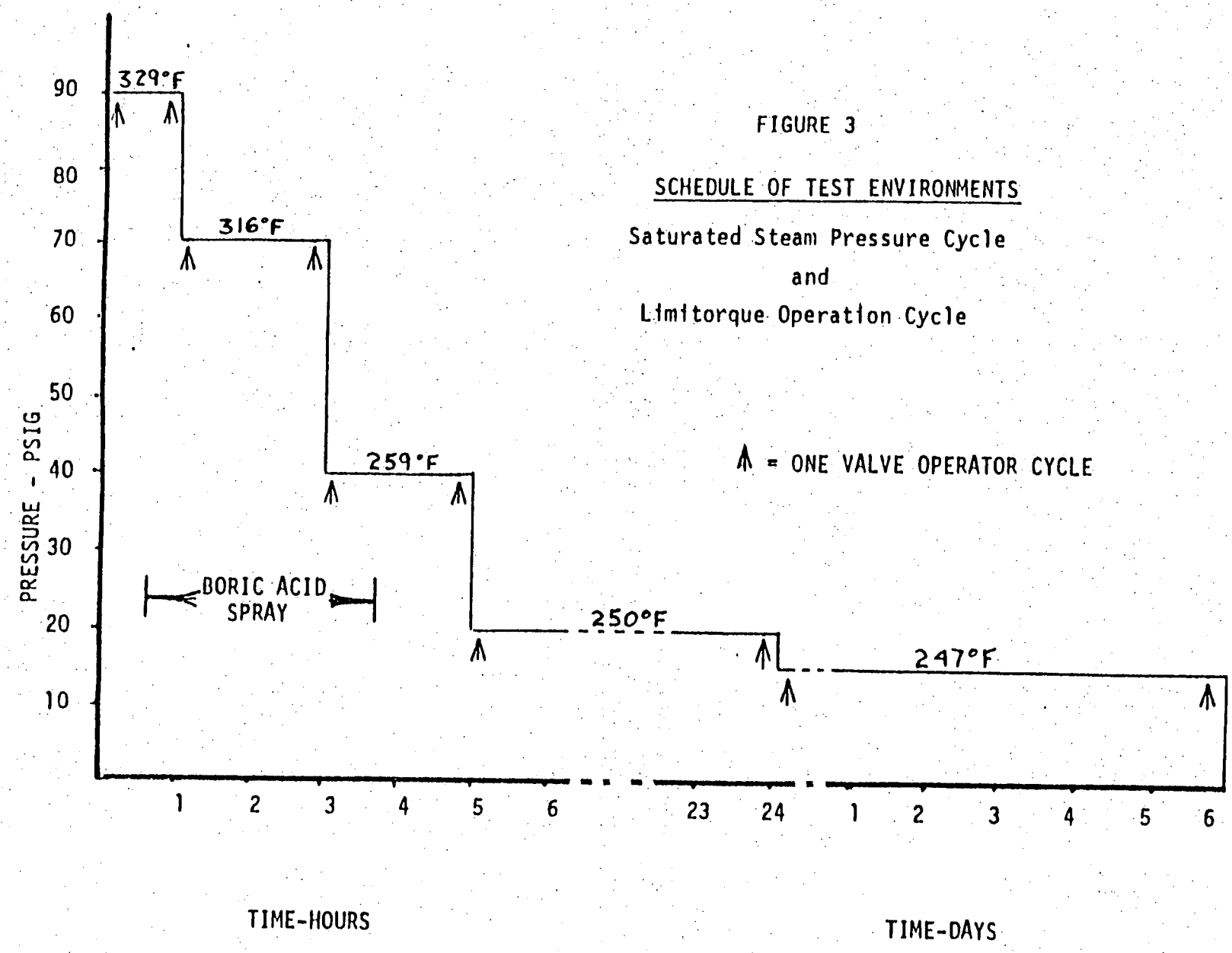


FIGURE 3

SCHEDULE OF TEST ENVIRONMENTS

Saturated Steam Pressure Cycle

and

Limitorque Operation Cycle

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Electrical Cable MANUFACTURER: General Electric MODEL NO.: SI-58042 FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: Various	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	Note 16		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Electrical Cable MANUFACTURER: General Electric MODEL NO.: SI-58136 FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: Various	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED Note 16		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Electrical Cable MANUFACTURER: General Electric MODEL NO.: SI-58081 FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: Various	OPERATING TIME	180 days		FSAR Section 14.10.I.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	Note 16		Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Electrical Cable MANUFACTURER: General Electric MODEL NO.: SI-58007 FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: Various	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED Note 16		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION		ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
		PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM:	NA	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
PLANT I.D. NO.:	NA	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
COMPONENT:	Terminal Board	PRESSURE (PSIG)	Note 16		Reference 3			Note 1
MANUFACTURER:	General Electric	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
MODEL NO.:	CR151D3	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
FUNCTION:	NA	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
ACCURACY:	NA	AGING	Not Required		Note 2			Note 1
SERVICE:	NA	SUBMERGENCE	NA	NA	NA	NA	NA	NA
LOCATION:	Various							

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Instrument Cable MANUFACTURER: Samuel Moore Co. MODEL NO.: #1802/1852/1862 FUNCTION: NA ACCURACY: NA SERVICE: NA LOCATION: Various	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED Note 16		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: Micro-Switch MODEL NO.: BZE6-2RQ2 FUNCTION: Position Indication ACCURACY: NA SERVICE: AO 2377, 2378, 2379, 2380, 2381, 2383, 2386, 2387, 2896 LOCATION: Various	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED Note 16		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: National Acme (NAMCO) MODEL NO.: EA-170 14100 FUNCTION: Position Indication ACCURACY: NA SERVICE: CV-7440 LOCATION: Torus Compartment	OPERATING TIME	180 days	200 hrs.	FSAR Section 14.10.1.3	Reference 11	Simultaneous Test	Note 1
	TEMPERATURE (°F)	(Accident Profile B.6)	200°F	Reference 3	Reference 11	Simultaneous Test	Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5	$2.04\ (10^8)$	FSAR Table 14-10-4	Reference 11	Sequential Test	None
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: National ACME (NAMCO) MODEL NO.: D2400X ST FUNCTION: Position Indication ACCURACY: NA SERVICE: CV-7440 LOCATION: Torus Compartment	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: Micro-Switch MODEL NO.: BZE6-2RN FUNCTION: Position Indication ACCURACY: NA SERVICE: AO-2541 (A,B) AO-2561 (A,B) LOCATION: Torus Compartment	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: National Acme (NAMCO) MODEL NO.: SL3-B2W FUNCTION: Position Indication ACCURACY: NA SERVICE: AO 2-86(A-D) LOCATION: Steam Chase	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.3)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: National Acme (NAMCO) MODEL NO.: SL5-C3L FUNCTION: Position Indication ACCURACY: NA SERVICE: CV - 2384 LOCATION: Torus Compartment	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profice B.5)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 1			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: National Acme (NAMCO) MODEL NO.: EA08021100 FUNCTION: Position Indication ACCURACY: NA SERVICE: CV-7956 LOCATION: Torus Compartment	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Limit Switch MANUFACTURER: National Acme (NAMCO) MODEL NO.: D1200G FUNCTION: Position Indication ACCURACY: NA SERVICE: CV 3305 3310, 3306 3311, 3307 3312, 3308 3313, 3309 3314 LOCATION: Various	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED Note 16		Reference 3			Note 1
	PRESSURE (PSIG)			Reference 3			Note 1
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: NA PLANT I.D. NO.: NA COMPONENT: Banana Plug MANUFACTURER: E. F. Johnson MODEL NO.: 108-0300-01 FUNCTION: NA ACCURACY: NA SERVICE: Connectors for TS 23-101(A-D) 2-121(A-D) 23-102(A-D) 2-122(A-D) 23-103(A-D) 2-123(A-D) 23-104(A-D) 2-124(A-D) 13-79 (A-D) 13-80 (A-D) 13-81 (A-D) 13-82 (A-D) LOCATION: Various	OPERATING TIME	None		Note 15			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED		Reference 3			Note 1
	PRESSURE (PSIG)	Note 16		Reference 3	Note 9		None
	RELATIVE HUMIDITY (%)	100%		Reference 3			Note 1
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: 250 VDC PLANT I.D. NO.: See Below COMPONENT: Motor Control Center MANUFACTURER: General Electric MODEL NO.: IC 7700 FUNCTION: ACCURACY: NA SERVICE: MCC D311 MCC D312 LOCATION: HPCI Room RCIC Room	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profiles B.6 and B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100		GE Spec 257HA351AJ 257HA345AF			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Section 14.10.1.3			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	Note 17		Reference 3			"

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: 480V Station Auxiliary PLANT I.D. NO.: See Below COMPONENT: Motor Control Center MANUFACTURER: General Electric MODEL NO.: DA-7700 FUNCTION: ACCURACY: NA SERVICE: MCC 142, MCC 143 LOCATION: Turbine Building 931' Elev. SE	OPERATING TIME	8 hrs		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.4)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		"			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 14	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HVAC PLANT I.D. NO.: V-AC-6 COMPONENT: Motor MANUFACTURER: U S Motors MODEL NO.: F-1088-01-268 FUNCTION: Fan Motor ACCURACY: NA SERVICE: RCIC Room Cooler LOCATION: RCIC Room	OPERATING TIME	8 hrs		Reference 4			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.9)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA351AJ			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	Not Required	NA	Note 8	NA	NA	NA
	AGING	Not Required		Note 2			Note 1
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HVAC PLANT I.D. NO.: V-AC-4,5 COMPONENT: Motor MANUFACTURER: U S Motors MODEL NO.: S/N 4152941, 4152940 FUNCTION: Fan Motor ACCURACY: NA SERVICE: RHR Room Cooler LOCATION: RHR Room	OPERATING TIME	180 days		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.11)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		"			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.9×10^5		FSAR Table 14-10-4			Note 1
	AGING	Not Required		Note 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

COMPONENT EVALUATION WORKSHEET

EQUIPMENT DESCRIPTION	ENVIRONMENT			DOCUMENTATION REF.		QUALIFICATION METHOD	OUTSTANDING ITEMS
	PARAMETER	SPECIFICATION	QUALIFICATION	SPECIFICATION	QUALIFICATION		
SYSTEM: HVAC PLANT I.D. NO.: V-AC-8 (A,B) COMPONENT: Motor MANUFACTURER: US Motors MODEL NO.: F-1323-02-268 FUNCTION: Fan Motor ACCURACY: NA SERVICE: HPCI Room Cooler LOCATION: HPCI Room	OPERATING TIME	8 hrs		FSAR Section 14.10.1.3			Note 1
	TEMPERATURE (°F)	SEE ACCIDENT & TEST PROFILES PROVIDED (Accident Profile B.6)		Reference 3			"
	PRESSURE (PSIG)			"			"
	RELATIVE HUMIDITY (%)	100%		GE Spec 257HA345AF			"
	CHEMICAL SPRAY	NA	NA	NA	NA	NA	NA
	RADIATION (RADS)	7.5×10^4		FSAR Table 14-10-4			Note 1
	AGING	Not Required		NOTE 2			"
	SUBMERGENCE	NA	NA	NA	NA	NA	NA

NOTES

1. Additional qualification documentation is being obtained.

2. In the FSAR, aging was not considered an environmental parameter. The effect of aging on this equipment will be evaluated as required by Action Item #4 of this Bulletin.

3. In the FSAR, radiation was not considered an environmental parameter. The effect of radiation on this equipment will be evaluated as required by Action Item #4 of this Bulletin.

4. The operating time requirement was derived from LOCA and HELB analysis. No specific specification is available for this equipment.

5. In FSAR Section 14.10.1.3, the post accident cooling capability is evaluated for 180 days. The indication feature of this instrument could be required for this period.

6. In the FSAR analyses, this equipment is not assumed to operate to mitigate the consequences of a LOCA. Therefore, qualification to LOCA induced environmental conditions, i.e., radiation, is not required.

7. Accidents for which the drywell spray could be required do not result in a hostile pressure, temperature or humidity environment at the valve's locations.

8. In the FSAR analyses, the RCIC system is not assumed to operate to mitigate the consequences of a LOCA. Therefore, qualification to LOCA induced environmental conditions, i.e., radiation, is not required.

9. There is no credible failure mechanism for this component due to the accident pressures.

10. An operating time specification for this equipment is not available. Since the only environmental parameter of concern is radiation, use of the 180 day total integrated dose as a qualification requirement provides adequate consideration of operating time.

11. This equipment is not assumed to operate to mitigate the consequences of a HELB. A LOCA will not result in a harsh pressure, temperature or humidity environment. Therefore, qualification for these parameters is not required.

12. An operating time specification for this equipment is not available. Since the only environmental parameter of concern is radiation, use of the total integrated dose values of FSAR Section 5.3.4 as a qualification requirement provides adequate consideration of operating time.

13. The temperature, pressure, and humidity conditions in the SBGT system room will not be significantly affected by a LOCA or HELB and therefore, qualification for these parameters is not required.

14. This equipment will not experience a harsh post-accident radiation environment.

15. No operating time specification exists for this equipment. However, for accidents where the equipment is assumed to operate to mitigate the consequences of the accident, components complete their safety function when the area reaches a temperature of $\leq$ 200° F.

16. The component is located in various places outside containment, so it must be qualified to the worst accident environment in this area. The main steam tunnel would have the highest pressure (Profile B.3) and the torus compartment would have the highest temperature (Profile B.5), so it will be qualified to both of these accident environments.

17. The motor control center in the HPCI room is below the flood level due to a feedwater break in the steam tunnel.

DOCUMENTATION REFERENCES

1. GE document, Plant Equipment Design Memo #126-62.

2. ACME Cleveland Development Company, Test Plan , dated August 31, 1977.

3. Bechtel Power Corporation; Monticello Nuclear Generating Plant - Unit 1, Northern States Power Company - "Pipe Break Outside Containment Results"; Job 10040; Table 1; August, 1973.

4. HELB analysis report "Postulated Pipe Failures Outside Containment", submitted to the AEC by letter from E. C. Ward (NSP) to A. Grambusso (AEC), dated September 7, 1973.

5. Letter, G. H. Scott (GE) to L. R. Eliason (NSP), dated November 14, 1978.

6. Limitorque Qualification Test Report, Project 600376A, dated May 13, 1976.

7. ASCO Test Summary supplied as Certificate of Compliance to NSP Purchase Order #M05813.

8. Franklin Institute Test Report F-C2232-01.

9. Limitorque Engineering Order 600198, dated January 2, 1969.

10. Franklin Institute Test Report F-C2485-01.

11. ACME Cleveland Report "Qualification of Namco Controls Limit Switch Model EA-170", March 17, 1978.

12. Rosemount Procedure 37327B, March 28, 1973.

13. General Electric Document, Qualification Report for F01 Penetration Assembly.

14. Letter G. G. Sherwood (GE) to NRC, dated December 2, 1977.

15. Letter L. J. Wachter (NSP) to J. G. Keppler (NRC), dated December 8, 1977.

16. Wyle Laboratories Qualification Test Report #44114-2 for General Electric Cable splices. Rockbestos Company document "Class IE Qualification of Raychem Splices", dated April 14, 1978 for Rockbestos Cable splices.

17. Rockbestos Co. Document "Qualification of Firewall III Class IE Electric Cables", dated February 1, 1977.

18. Rockwell Co. Test Report #2792-03-02.