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JAN 0 6 2005

LR-N04-0591

PSEG
Nuclear LLC

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555-0001

RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION REGARDING RELIEF REQUESTS S1-RR-04-V01 AND V02 SALEM NUCLEAR GENERATING STATION, UNIT NO. 1 FACILITY OPERATING LICENSES NO. DPR-70 DOCKET NO. 50-272

Reference: LR-N04-0299, Inservice Inspection Program Relief Requests S1-RR-04-V01 and V02 Salem Generating Station Unit 1, dated July 9, 2004

On July 9, 2004, PSEG Nuclear LLC (PSEG) submitted the referenced relief requests. The relief request, if approved, would allow use of an alternate testing methodology to that specified in the American Society of Mechanical Engineers Code for Operation and Maintenance of Nuclear Power Plants OMa-1988, Part 10-4.3.2.1. The testing verifies Accumulator Outlet Check Valves 11SJ55, 12SJ55, 13SJ55, 14SJ55, 11SJ56, 12SJ56, 13SJ56, and 14SJ56 are able to perform their safety function. NRC letter dated October 6, 2004, requested additional information regarding the relief request. PSEG's response to the request for additional information is contained in Attachments 1, 2, and 3.

If you have any questions or require additional information, please contact Mr. Michael Mosier at (856) 339-5434.

Sincerely,

Christina L. Perino
Director – Licensing and Nuclear Safety

Attachments (3)

A047

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REQUEST FOR ADDITIONAL INFORMATION

REGARDING RELIEF REQUESTS S1-RR-04-V01 AND V02

SALEM NUCLEAR GENERATING STATION, UNIT NO. 1

DOCKET NO. 50-272

By letter dated July 9, 2004, PSEG Nuclear, LLC (PSEG) submitted a request for relief from the provisions of Title 10 of the *Code of Federal Regulations*, Section 50.55a(f), Inservice Testing Requirements. Specifically, the requested relief would allow use of an alternate testing methodology to that specified in the American Society of Mechanical Engineers Code for Operation and Maintenance of Nuclear Power Plants OMa-1988, Part 10-4.3.2.1. The testing verifies that the Accumulator Outlet Check Valves 11SJ55, 12SJ55, 13SJ55, 14SJ55, 11SJ56, 12SJ56, 13SJ56, and 14SJ56 are able to perform their safety function. The Nuclear Regulatory Commission (NRC) staff has completed its preliminary review of your response and determined that responses to the following questions are necessary for completion of the NRC staff's review:

Question 1

For Salem Unit 1, the third 10-year IST interval commenced August 30, 1999. In a letter dated September 26, 2001 from the NRC to PSEG Nuclear, LLC, the NRC staff stated its understanding that the third IST interval program would be resubmitted by the licensee and the NRC staff would review the revised program, with its associated relief requests. As of the date of this submittal, it is not apparent that PSEG has resubmitted its third IST interval program. Please provide the aforementioned information or clarify what conditions have changed with respect to the NRC staff's understanding in the September 26, 2001 letter.

Response

The Third 10-year Inservice Testing Manual for Pumps and Valves is provided in Attachment 2.

Question 2

The submittal states that the valves are tested during refueling with the reactor head removed and cavity level between 125.5 and 126.5 feet. The time histories provided in calculation S-1-SJ-MDC-1539 indicate that the reactor head is on. Provide the time histories for reactor head off conditions. Include a discussion to clarify this apparent discrepancy.

Response

Calculation S-2-SJ-MDC-1394, Rev. 3 (Attachment 3) for Salem Unit 2 showed that the pressure decay time with the reactor head off is 0.5 seconds less than the pressure decay time with the head on. The time history in Calculation S-1-SJ-MDC-1539 was only run for the case with the head on since hydraulic characteristics for Salem Unit 1 and Unit 2 are similar. Therefore, the 0.5 seconds was applied to Salem Unit 1.

Question 3

Two previous safety evaluations authorizing similar reliefs for Salem Units 1 and 2 dated March 12, 1999, and January 2, 2004 (Available in ADAMS under accession numbers 9903190004 and ML033370985, respectively) imposed a condition that when the acceptance criterion is exceeded during the proposed testing, both check valves associated with the specific accumulator be evaluated for the need for corrective action. Justify why this condition has not been included in the relief request, or why it should not be imposed by the staff.

Response

Procedure S1.OP-ST.SJ-0006(Q), Inservice Testing Safety Injection Valves Mode 6, shall be revised to include the condition that, when the acceptance criterion of 28.1 seconds is exceeded during testing, both the SJ55 and SJ56 check valves associated with a specific accumulator will be evaluated for the need for corrective action. The revision is based upon issuance of the relief requests.

Question 4

Provide the actual recorded decay times for all the accumulators prior to implementing the valve stroke time modification and the decay times for the accumulators after implementation of the modification. State whether the decay times are trended from test to test.

Response

The test results (decay times) for the accumulators is provided below:

Accumlator Decay Times					
Date of Test	11SJ55/56	12SJ55/56	13SJ55/56	14SJ55/56	Acceptance Criteria
4/15/2004	22.91	25.16	x	24.53	Maximum Decay Time <= 27.0
4/21/2004	x	x	22.97	x	"
11/16/2002	22.60	25.40	26.00	22.20	"
4/13/2001	23.28	21.85	23.06	22.59	"
9/25/1999	20.90	22.00	22.70	24.80	"
11/25/1997	22.20	21.21	22.66	23.50	Maximum Decay Time <= 27.5
8/5/1995	22.30	x	25.80	25.90	"
11/13/1993	20.25	22.80	22.70	23.90	Maximum Decay Time <= 37.0

Decay times are not trended from test to test. The results are reviewed to ensure the maximum decay time is not exceeded on any given test. Prior to the next refueling outage, all four loops will be tested again.

Question 5

The supporting calculation uses the accumulator with the highest flow resistance values and an assumed valve stroke time of 22 seconds to model the decay profile. The calculation states that the Unit 1 acceptance criterion will be made equal to the Unit 2 criterion. Modeling the decay profile using the accumulator with the highest flow resistance will possibly result in longer calculated decay times and does not appear to be conservative with respect to establishing one acceptance criterion for all accumulators. Using a valve stroke time of 22 seconds to model accumulator pressure and flow does not appear to be conservative when the actual measured stroke times were 20.5 and 21.3 seconds. Additionally, this is not consistent with the Unit 2 methodology, which uses the fastest acting valve to model pressure decay and flow. Explain why the Unit 1 calculation is conservative with respect to establishing the acceptance criterion for the accumulators and describe the rational for concluding that Unit 1 is bounded by the acceptance criterion established for Unit 2. Provide pressure and discharge flow rate time histories for check valve maximum swing of 60 degrees.

Response

The calculation for Unit 1 uses the highest friction loss factor (255/ft) and a valve stroke time of 22 seconds to model accumulator pressure decay times. These results were checked against the Unit 2 calculation, which used the fastest acting valve and lower flow resistance to model pressure decay times. The results from these runs were approximately the same; therefore, the results from the Unit 2 calculation were used without running time histories for check valve swing of 60 degrees. The calculation for Unit 2 uses a friction loss factor of 221/ft and a valve stroke time of 19.3 seconds to model accumulator pressure decay times. Therefore, the results from the Unit 2 calculation were used as the bounding analysis.

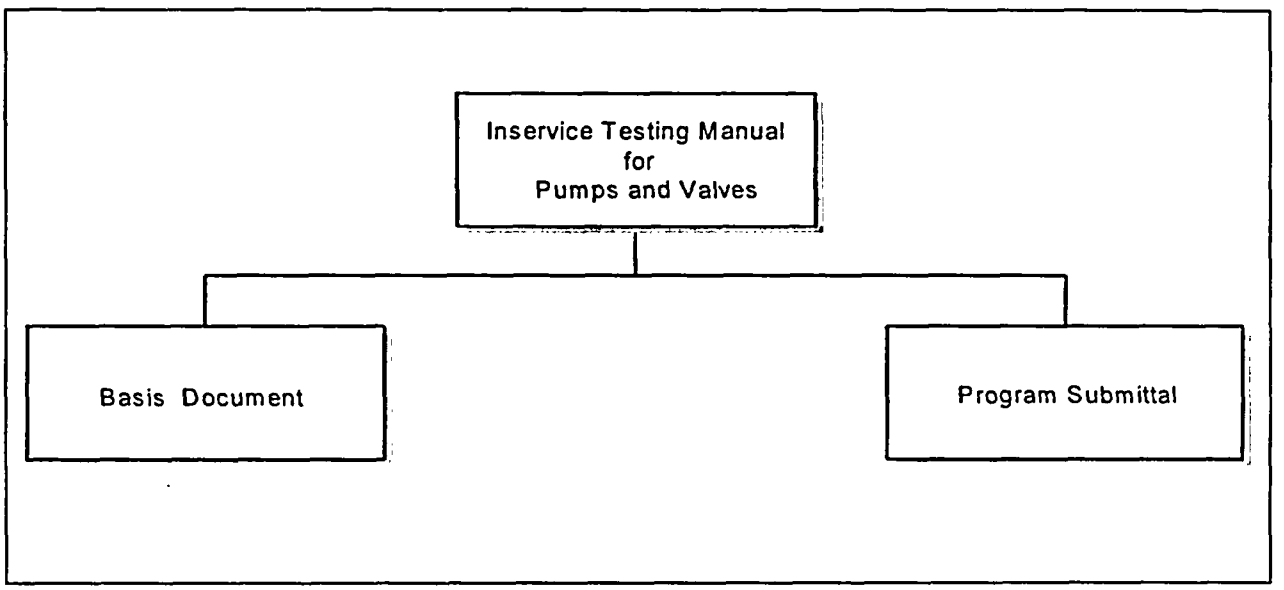
Salem Nuclear Generating Station Units 1 & 2

Inservice Testing Manual For Pumps and Valves

Interval 3 Program, June 1, 2002, Revision 1

Salem Nuclear Generating Station
Units 1 and 2

Inservice Testing Manual for Pumps and Valves



Interval 3 Program

August 31, 1999 through August 30, 2009

June 01, 2002
Revision 1

PSEG Nuclear
Hancock's Bridge, New Jersey

Inservice Testing Manual for Pumps and Valves

Program

Revision 1

Signature Page

Revision Summary: -Addition of SW79 valves to Tech Position 5 for Disassembly and Inspect.
-Reclassified testing for 11-15SW57, 21-25SW57, 11-15SW223, 21-25SW223, 11SW122, 21-22SW122, 12SW376 and 12SW80 to control valves requirements for valves with fail-safe functions.
-Added stroke time open test for 1/2SJ4/5 valves to reflect functional change per design change.
-Addition of relief valves 1/2SJ10 per design change.
-Reclassified Refuel Justifications 13 and 22 back to original designation as Relief Requests, numbered RR03 and RR04 respectively.
-Correction to designated test interval for Class 2 and 3 relief valves from 5 year interval to 10 year interval per ASME OM-1-1987 edition.
-Drawing coordinate corrections for various components.
-Changes to various implementation procedure numbers for testing.

Prepared by: **Robert Binz IV**
NBU IST Program Manager

Reviewed by: **David W. Lyons** 6/5/2002
NBU IST Implementation Engineer

Concurrence by: **William Treston** 6/6/02
Supervisor - ISI/IST Programs

Approved by: _____ **Date:** 6/7/02

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1.0 MANUAL SUMMARY

The Salem Nuclear Generating Station, Units 1 & 2 Inservice Testing Manual has two major sections: Basis and Program. The IST Manual for Pumps & Valves is issued controlled via the Document Control Records Management System (DCRMS) and is available for reference under the Procedures (Records) global menu selection. A description of the IST Manual sections is provided below:

Basis - This section identifies the pumps and valves that have safety functions which perform a specific function required to bring the reactor from any operating mode to the cold shutdown condition, in maintaining the cold shutdown condition, or in mitigating the consequences of an accident. For each system included in the program, each Process and Instrument Diagram (P&ID) sheet was analyzed to determine if any pumps or valves had safety functions. Each pump or valve associated with each safety function was analyzed to determine if it had an active safety function described in the UFSAR, Technical Specification, or other design basis documents. Note that some components with passive safety functions are not analyzed. An example of a passive component that is not analyzed is a manual vent, drain or test connection valve that is normally closed. All components with active safety functions are covered in the Basis document. The Basis document also contains test circuit diagrams, instrument accuracy tables, and a section for interpretation of requirements.

Program - This section is the submittal document for the Nuclear Regulatory Commission (NRC). This section meets the minimum content requirements for a Program Submittal, and is sufficiently complete to provide an adequate description of the program. This program document provides the following: a description of the IST Program, Salem IST Technical Positions, Cold Shutdown Justifications, Refueling Outage Justifications, Relief Requests, Pump Test Tables and Valve Test Tables.

2.0 PROGRAM SUBMITTAL

2.1 PROGRAM REVISION EXECUTIVE SUMMARY

Interval 3 Program - Revision 1: Update. Refer to Signature Page for details.

2.2 PROGRAM PURPOSE

The purpose of this program plan document is to provide the requirements for assessing the operational readiness of pumps and valves whose specific functions are required to bring the reactor from any operating mode to the cold shutdown condition, in maintaining the cold shutdown condition, or in mitigating the consequences of an accident.

The commercial operating date for Salem Nuclear Generating Station Unit 1 is June 30, 1977. The commercial operating date for Salem Nuclear Generating Station Unit 2 is October 31, 1981.

The IST program inservice inspection interval for Salem Unit 2 was revised to coincide with Salem Unit 1 per a request in the IST Program Submittal to the NRC dated March 30, 1987. NRC SER dated 10/9/92 identified that the interval date for both units required clarification. NRC SER dated 4/15/94 documents NRC approval of concurrent intervals for Salem Units 1 and 2.

The Salem Inservice Testing Program for Pumps and Valves is applicable for a one hundred twenty (120) month interval. The second 120-month interval for Salem Station was intended to be 6/30/87 through 6/30/97. The second interval for Salem Station was extended an additional 26 months due to the June 1995 through August 1997 extended shutdown of Salem Unit 2. The second ten year concurrent interval for both Salem Units 1 and 2 will now end on 8/30/99. The second concurrent interval IST Program is applicable beginning 6/30/87 and increased to twelve years and two months, ending on 8/30/99. This extension is allowed per IWA-2400, "Inspection Intervals" and is supported by NUREG-1482, Section 3.3.1, "Extension of Interval." Specifically, Subsection IWA of Section XI applies to both IST and inservice inspections.

The "Program" portion of the IST Manual is submitted to the NRC for their review and approval of the successive 120-month IST Program. The program documents submitted to the NRC are used to prepare for IST inspections and to review relief requests. Regarding periodic changes, the program document need not be submitted more often than necessary to reflect major changes, but it is expected that licensees make changes to the document periodically, and once per cycle, or once every other cycle, a complete up-to-date copy should be submitted to the NRC.

This program plan establishes the requirements which are then translated into implementing (surveillance) procedures for inservice testing and evaluation of Class 1, 2, and 3 pumps and valves. Additionally, using the guidance in NUREG-1482, certain other

valves not required to be classified as Class 1, 2, and 3, but which perform a specific function required to bring the reactor from any operating mode to the cold shutdown condition, in maintaining the cold shutdown condition, or in mitigating the consequences of an accident, are also included.

2.3 REGULATORY BASIS

Code of Federal Regulations, Title 10, Section 50.55a (10CFR50.55a), "Codes and Standards," states requirements for IST of certain safety-related pumps and valves. These components are required to be tested according to the requirements of Operations and Maintenance (OM) of Nuclear Power Plants, Parts 1, 6 and 10. The testing is intended to assess operational readiness of components. The tests conducted during the initial and successive 120-month intervals are to based on the requirements in the applicable edition and addenda of the Code, to the extent practical, within the limitations of design, geometry, and materials of construction, as described in 10 CFR50.55a(f)(4).

10 CFR50.55a(f)(4)(ii) requires that IST in each 120-month interval following the initial interval be conducted in compliance with the requirements of the latest edition and addenda of the Code incorporated by reference in 10CFR50.55a(b), in effect 12 months before the start of the interval. Pursuant to 10CFR50.55a(f)(4)(iv), IST may meet the requirements of subsequent editions and addenda incorporated by paragraph (b) or portions of a revised edition of Section XI. When portions of a revised edition are used, all related requirements of the respective editions or addenda must be met.

The NRC may authorize alternatives to Code testing requirements submitted as relief requests, or submitted in a similar format that includes a description of the requirements, a description of the proposed alternative, and the justification for approval of the alternative. 10CFR50.55a(a)(3)(i) allows the NRC to authorize alternatives if "the proposed alternatives would provide an acceptable level of quality and safety." The NRC will normally approve an alternative pursuant to this provision only if the licensee proposes a method of testing that is an equivalent method, or an improvement, to the Code method, or if the testing will comply or is consistent with the later Code editions approved by NRC in 10CFR50.55a(b). Where plant design makes the testing of certain components complicated or impossible, an alternate method of testing is documented in a Relief Request. Indices and text are provided as Attachment 4, "Pump Relief Requests", and as Attachment 5, "Valve Relief Requests".

The Salem Units 1 & 2 Inservice Testing Program for Pumps and Valves was developed in accordance with the requirements of ASME Section XI, (Subsections IWP & IWV, 1989 Edition) and subsequently ASME/ANSI OMa-1988 Addenda to the ASME/ANSI OM-1987 Edition (ASME/ANSI OM Part 1 - "Requirements for Inservice Performance Testing of Nuclear Power Plant Pressure Relief Devices", Part 6 - "Inservice Testing of Pumps in Light Water Power Plants", and Part 10 - "Inservice Testing of Valves in Light-Water Power Plants").

Following component classification and categorization, test requirements and frequencies were assigned. Technical Specification, UFSAR and other licensing commitments were considered during the assignment of test frequencies. Additional guidance for the development of the Salem Units 1 & 2 Inservice Testing Program was obtained from NRC Generic Letter 89-04, "Guidance on Developing Acceptable Inservice Testing Programs", and NUREG-1482, "Guidelines for Inservice Testing at Nuclear Power Plants".

2.4 PROGRAM DEVELOPMENT

The IST Program covers components in ASME Code Class systems and a limited number of Non-ASME Code Class systems. Components included in the IST Program are those whose specific functions are required to bring the reactor from any operating mode to the cold shutdown condition, in maintaining the cold shutdown condition, or in mitigating the consequences of an accident.

ASME Class 1, 2 and 3 piping and components are identified on the Salem Piping and Instrument Diagrams (P&ID's). The P&ID's were reviewed to identify every system or portion of system that are Code Class 1, 2, or 3. P&ID's containing Class 1, 2, or 3 plant pumps and valves or other pumps and valves with safety functions that require testing are listed in Table 1-1 and 1-2, "System and P&ID Listing." Each Class 1, 2, and 3 component was reviewed to determine which require testing to satisfy the scope requirements of ASME/ANSI OMa-1988 Addenda to the ASME/ANSI OM-1987 Edition, Part 1, paragraph 1.1; Part 6, Paragraph 1.1; and Part 10, paragraph 1.1.

After all systems or portions of systems containing pumps and valves within the scope of the IST Program were identified, the safety functions for each component was determined. The safety function of each component was identified and documented in a computer database (Access PC™). The references used in these determinations were also recorded and include the UFSAR, Technical Specifications, and other design basis documents. IST categories per ASME/ANSI OMa-1988 Addenda to the ASME/ANSI OM-1987 Edition were determined. In cases where an interpretation of the ASME/ANSI Code or applicable regulations was necessary, the interpretation was documented in a plant-specific Technical Position. These Technical Positions are included in this program plan as Attachment 1, Technical Positions.

Where the testing of certain plant components is not possible during normal plant operation, an alternate testing schedule is documented in a Cold Shutdown Justification. An index and text is provided in Attachment 2, "Cold Shutdown Justifications."

Where the testing of certain plant components is not possible during a cold shutdown, an alternate testing schedule is documented in a Refueling Outage Justification. An index and text is provided in Attachment 3, "Refueling Outage Justifications."

Where plant design makes the testing of certain components complicated or impossible, an alternate method of testing is documented in a Relief Request. Indices and text are provided in Attachment 4, "Pump Relief Requests", and Attachment 5, "Valve Relief Requests."

2.5 REFERENCES

Technical Specifications, Salem Nuclear Generating Station.

Updated Final Safety Analysis Report, Salem Nuclear Generating Station.

Code of Federal Regulations, Title 10, Section 50.55a, "Codes and Standards"

10CFR50 Appendix A, General Design Criteria for Nuclear Power Plants

10CFR50 Appendix J, Primary Reactor Containment Leakage Testing

ASME Code, Section XI, Subsections IWP and IWV, 1989 Edition.

OMa-1988 Addenda to the ASME/ANSI OM-1987 Edition (Part 1, Part 6, and Part 10)

Minutes Of The Public Meetings On Generic Letter 89-04, dated October 25, 1989

G. L. No. 89-04, Guidance on Developing Acceptable Inservice Testing Programs.

OM Code - 1990 Interpretation 91-3, Part 6, para 4.6.1.1 (OM-1987 through OMC-1990)

NUREG-0800, Standard Review Plan.

NUREG-1482, April 1995, Guidelines for Inservice Testing at Nuclear Power Plants

NRC Inspection Procedure 73756, Inservice Testing of Pumps and Valves, July 27, 1995.

NRC Temp. Instruction 2515/110, Performance of Safety-Related Check Valves, 11/91.

NRC Temp. Instruction 2515/114, Inspection Requirements for GL 89-04, 1/92.

NRC Reg. Guide 1.26, "Quality Group Classification and Standards for Water, Steam and Radioactive Waste Containing Components of Nuclear Power Plants."

NRC Regulatory Guide 1.137, "Fuel Oil Systems for Standby Diesel Generators."

NUREG/CP-0123, Second NRC/ASME Symposium on Pump & Valve Testing, Session 2A, "Use of Ultrasonics and Acoustics in Measurement of Solenoid Valve Stroke Time."

2.6 DEFINITIONS

Active valves - Valves which are required to change obturator position to accomplish the required function(s) (e.g., valves which receive an automatic safety actuation signal, or check valves not locked or held in position). If a valve is routinely repositioned during power operations (or has an active safety function), it is an active valve. A valve need not be considered active if it is only temporarily removed from service or from its safety position for a short period of time, such as stroke time measurement for surveillance testing or manually opening a sample valve to take a sample while maintaining administrative control over the valve. (PSEG Nuclear IST interface with NRC identified that the previous statement was primarily for manual valves remaining passive)

Active Failure - A malfunction in the active part of a component. An active failure in mechanical components could be due to a part moving that should not move, or a part failing to move.

Alert Range - The range for a given pump parameter outside the normal operating range in which an increased testing frequency is specified.

Category A, B, C or D - Groupings of valves by function. When more than one distinguishing category characteristic is applicable, all requirements of each category are applicable, although duplication or repetition of common testing requirements is not required. The valve categories are as follows:

a. **Category A** - valves for which seat leakage is limited to a specific maximum amount in the closed position for fulfillment of their function(s).

b. **Category B** - valves for which seat leakage in the closed position is inconsequential for fulfillment of their function(s).

c. **Category C** - valves which are self-actuating in response to some system characteristic, such as pressure (safety/relief valves) or flow direction (check valves) for fulfillment of the required function(s).

d. **Category D** - valves which are actuated by an energy source capable of only one operation, such as rupture disks or explosively actuated valves

Containment Isolation Valve (CIV) - Any valve whose function is to prevent post accident containment atmosphere leakage to areas outside containment.

Enforcement Authority - A regional or local governing body, such as a state or municipality of the United States empowered to enact and enforce Boiler and Pressure Vessel Code Legislation.

Exercising - The demonstration, based on direct visual or indirect positive indications, that the moving parts of a valve will perform the required function(s).

Fail-Safe Valve - Valve that moves to the position required to fulfill its safety function upon loss of motive power (pneumatic, hydraulic or electric).

Full Stroke Time - The time interval from initiation of an actuating signal to a valve to the indication of the defined end of the operating stroke of the valve.

Inservice Test - A test for obtaining information through measurement or observation to determine the operational readiness of a pump or valve.

Inservice Test Program Submittal- The document that establishes scope and detailed testing requirements needed to comply with the ASME or OM Code, applicable IST Technical Specifications and other licensing basis documents. The IST Program provisions that are submitted to the Regulatory Authority (NRC) in accordance with applicable requirements.

Inservice Test Program - A collection of documents including the Inservice Test Program Submittal, procedures, records of tests, etc., that specify and implement inservice testing requirements.

Instrument Accuracy - The allowable inaccuracy of an instrument loop based on the square root of the sum of the squares of the inaccuracies of each instrument or component in the loop. For flow loops, this inaccuracy does not include the inaccuracies of the flow sensing element; e. g., orifice, venturi, etc.

When a difference in readings taken from the same or different instruments is required to determine a value of a parameter (e.g., two levels taken over a timed interval to determine flow rate) the inaccuracy of the result is to be based on the square root of the sum of the squares of the inaccuracies of each instrument loop reading.

Instrument Loop - Two or more instrument or components working together to provide a single output (e.g., a vibration probe and its associated signal conditioning and readout devices).

Leakage Rate Test - Verification of the leak tight integrity of a valve using differential gas or liquid pressure or system fluid pressure.

Maximum Required Accident Condition Flow - The largest flow rate for which credit is taken for a component in a safety analysis in any flow configuration. The safety analyses are those contained in the UFSAR but are not limited to accident and transient analyses.

Normal System Operating Conditions - System fluid, pressure, and temperature during the phase of plant operation for which that system is intended to function.

Obturator - Valve closure member (disk, gate, plug, ball, etc.).

Operational Readiness - The ability of a pump or valve to perform its intended function.

Owner - The organization legally responsible for the operation, maintenance, safety, and power generation of the nuclear power plant.

Partial-Stroke Exercising -

a. Exercising a check valve to an open position less than full open or less than that required to pass the maximum required accident condition flow rate.

b. For power operated valves, exercising a valve to an intermediate position, versus fully open or fully closed.

Passive Valve - Valves which maintain obturator position and are not required to change obturator position to accomplish the required function(s) for shutting down the reactor to the cold shutdown condition, maintaining the reactor in cold shutdown, or in mitigating the consequences of an accident. If a valve is routinely repositioned during power operations (or has an active safety function), it is an active valve. A valve need not be considered active if it is only temporarily removed from service or from its safety position for a short period of time, such as stroke time measurement for surveillance testing or manually opening a sample valve to take a sample while maintaining administrative control over the valve. (PSEG Nuclear IST interface with NRC identified that the previous statement was primarily for manual valves remaining passive)

Valves that are locked or deenergized in their required positions, or are only repositioned from their safety position under administrative control are, in most cases, considered passive. Valves that are routinely repositioned during plant operation are not considered passive. "Routine" includes valve operations which occur as a result of normal operating procedures. Valve operations included within off-normal or emergency procedures are not considered routine. Valve operations which occur as a result of system startup or shutdown procedures, or infrequent operating procedures may be considered routine depending upon the frequency of the operation.

Plant Operation - The condition of operation at power as defined by the plant Technical Specifications.

Pressure Isolation Valve (PIV) - Either of two normally closed valves in series that isolate the reactor coolant system from an attached low pressure system, as defined by the Technical Specifications.

Rapid-Acting Valves - An optional classification for power operated valves with a full stroke time of 2 seconds or less.

Reactor Coolant System Pressure Isolation - That function which prevents intersystem over pressurization between the reactor coolant system and connected low-pressure systems.

Reference Values - One or more values of test parameters measured or determined when the equipment is known to be operating acceptably.

Regulatory Authority - A federal government agency, such as the United States Nuclear Regulatory Commission, empowered to issue and enforce regulations concerning the design, construction, and operation of nuclear power plants.

Remote Actuation - Actuation of a pressure relief device through a generated signal rather than by static inlet pressure.

Required Action Range - That region outside the upper and lower limits in which the pump is considered inoperable until the cause of the deviation has been determined and the condition corrected

Thermal Relief Valve - A relief valve shall be considered in a thermal application if they serve to protect portions of safety-related systems or components solely from over pressure due to thermal expansion while the component or portion of system is in an isolated condition. The applicable system portion or component would not be isolated during normal operations or accident conditions.

Vertical Line Shaft Pump - As referred to in OM-6, shall be defined as a vertically suspended pump where the pump driver and pumping element are connected by a line shaft(s) within an enclosing column which contains the pump bearings.

3.0 INSERVICE TESTING PROGRAM FOR PUMPS

3.1 Pump Inservice Testing Program Description

This program establishes the requirements for the performance. administration, and implementation of the Inservice Testing Program for selected pumps at Salem Nuclear Station. Units 1 & 2. This program includes pumps that are provided with an emergency power source and are required in shutting down the reactor to the cold shutdown condition, maintaining the cold shutdown condition, or mitigating the consequences of an accident.

This program plan meets the requirements of ASME Section XI (1989 Edition) ASME/ANSI OMa-1988 Addenda to the ASME/ANSI OM-1987 Edition, Part 6 - "Inservice Testing of Pumps in Light Water Power Plants." Specific relief requests from Code requirements are contained in Attachment 4.

3.2 Pump Program Table Description

The pumps included in the Hope Creek Nuclear Generating Station IST Program are listed in Table 2. The information contained in this table identifies those pumps required to be tested to the requirements of ASME Section XI (ASME/ANSI OMa-1988 Addenda to the ASME/ANSI OM-1987 Edition, Part 6 - "Inservice Testing of Pumps in Light Water Power Plants"). The pump tables show the following information:

PUMP NO - Component number as used on the P&ID and other plant documents.

PUMP DESCRIPTION - A description of the component.

P + ID No - Salem Piping & Instrument Diagram, dash, sheet number.

P + ID Name - The name of the Salem Piping & Instrument Diagram.

Drawing Coordinates - A letter / number combination that aids in locating the component on the P&ID.

ASME Class - Classification per ASME Boiler and Pressure Vessel Code, Section III. Code classes are Class 1 (1), Class 2 (2), Class 3 (3), and non-class (NC).

Pump Type - Pump types are horizontal centrifugal, vertical line shaft centrifugal, or positive displacement.

Driver - The power conversion method for the pump. Drivers are motor or turbine.

Mfg. Model ID - The name or model identifier used by the manufacturer.

TEST TYPE - Parameter to be measured during test. Possible parameters are discharge pressure (P); differential pressure (DP); suction pressure (Pi); flow rate (Q); speed (N); Vibration (V).

TEST FREQ. - quarterly full flow (Q-F); quarterly recirculation (Q-R); cold shutdown full flow (CS-F); cold shutdown recirculation (CS-R); reactor refueling outage full flow (RF-F); or reactor refueling outage recirculation (RF-R).

REL. REQ. - If a relief request is associated with this pump, the relief request number is shown here.

COLD SHUT. – If a cold shutdown is associated with this pump, the cold shutdown justification number is shown here.

TECH. POS. - If a technical position is associated with this pump, the technical position number is shown here.

COMMENTS - Any other information.

4.0 INSERVICE TESTING PROGRAM FOR VALVES

4.1 Valve Inservice Testing Program Description

This program establishes the requirements for the performance, administration, and implementation of the Inservice Testing Program for selected valves at Salem Nuclear Station, Units 1 & 2. This program includes those valves which are required to perform a specific function in shutting down the reactor to the cold shutdown condition, maintaining the cold shutdown condition, or mitigating the consequences of an accident.

This program plan meets the requirements of ASME Section XI (1989 Edition) ASME/ANSI OMa-1988 Addenda to the ASME/ANSI OM-1987 Edition, Part 10 - "Inservice Testing of Valves in Light Water Power Plants" and Part 1-"Requirements for Inservice Performance Testing of Nuclear Power Plant Pressure Relief Devices." Specific relief requests from Code requirements are contained in Attachment 5.

4.2 Valve Program Table Description

The valves included with the Hope Creek Nuclear Generating Station IST Program are listed in Table 3. The information contained in these exhibits identifies those valves required to be tested to the requirements of ASME XI (ASME/ANSI OMa-1988 Addenda to the ASME/ANSI OM-1987 Edition, Part 10 - "Inservice Testing of Valves in Light Water Power Plants"). Valves exempt per OMa-1988, Part 10, paragraph 1.2 are not listed. The headings for the valve tables are delineated below.

VALVE NO - Component number as used on the P&ID and other plant documents.

VALVE DESCRIPTION - A description of the component.

P + ID No - Salem Piping & Instrument Diagram, dash, sheet number.

P + ID Name - The name of the Salem Piping & Instrument Diagram.

Drawing Coordinates - A letter / number combination that aids in locating the component on the P&ID.

ASME Class - Classification per ASME Boiler and Pressure Vessel Code, Section III. Code classes are Class 1 (1), Class 2 (2), Class 3 (3), and non-class (NC).

IST Cat - Classification per ASME OM Part 10. IST Categories are A (gate and globe valves where the leak rate is critical to their safety function), B (gate and globe valves), C (check and relief valves), AC (check and relief valves where the leak rate is critical to their safety function) or D (rupture disk or explosive actuated valve).

Valve Type - The possible valve types are diaphragm (DIA), check (CK), plug (PL), relief (RV), gate (GT), globe (GB), stop check (SCK), three way (3WAY), butterfly (BFY), ball (BALL), needle (Needle), modified check valve (MCK), or testable check valve (TCK), excess flow check valve (XFV).

Actuator Type - The possible actuator types are air operated (AO), manually operated (MAN), motor operated (MO), self operated (SELF), solenoid operated (SO), steam operated (STM), hydraulically operated (HO), or self operated with a motor operator (such as stop check valve) (S/M).

Valve Size - The nominal valve size in inches.

Normal Position - The possible normal positions are open (O), close (C), both open and close (O/C), modulating (M), locked closed (LC), locked open (LO), throttled open (TO), or position dependent upon component operation (i.e. operates automatically with main component) (A).

Safety Position - The possible safety positions are open (O), close (C), both open and close (O/C), modulating (M), locked closed (LC), locked open (LO), or throttled open (TO).

A/P Classification - The classification of the valve as either Active or Passive. An Active (A) valve must reposition to fulfill its safety function. A Passive (P) valve need not reposition but must remain in its normal position to fulfill its safety function.

TEST TYPE - Parameter to be measured during test. Possible test types are as follows:

FSC	-	Full stroke exercise to the closed position.
FSO	-	Full stroke exercise to the open position.
FSTC	-	Fail safe test to the closed position.
FSTO	-	Fail safe test to the open position.
PIT	-	Position indication test.
RV	-	Relief valve test.
EX	-	Explosive valve test.
STC	-	Stroke time test to the closed position.
STO	-	Stroke time test to the open position.
CTC	-	Check valve test to the closed position.

CTO	-	Check valve test to the open position.
LT	-	Leak rate test to ASME Section XI requirements. This test applies to valves where leakage might negatively affect their safety function but are not containment isolation valves, such as PIVs and accumulator check valves.
LJ	-	A Type C leak rate test per 10CFR50 Appendix J requirements. This test applies to containment isolation valves.
PS	-	Partial stroke exercise valve.
SAM	-	Sample Disassembly & Inspection Schedule

TEST FREQ - Quarterly (Q), Cold shutdown (CS), Refueling outage (RF), Once every 18 months (18MO), Once every two years (2YR), Once every five years (5YR), Once every ten years (10YR) or Technical Specification required frequency (TS).

COLD SHUT - If a cold shutdown justification is associated with this valve, the cold shutdown justification number is shown here.

REFUEL OUTAGE JUST. - If a refueling outage justification is associated with this valve, the refueling outage justification is shown here.

REL REQ - If a relief request is associated with this valve, the relief request number is shown here.

TECH POS - If a technical position is associated with this valve, the technical position number is shown here.

COMMENTS - Any other information.

Table 1-1 System and P&ID Listing - Units 1 & 2 ASME

Unit 1	Unit 2	System Name	Analysis
205201-1	205301-1	Reactor Coolant	Pressurizer reliefs, pressurizer spray, and other pressurizer piping. Included in IST Program Basis.
205201-2	205301-2	Reactor Coolant	11(21) & 13 (23) steam generator, reactor coolant pump, and reactor and connecting piping. The reactor coolant pump is not required for plant safe shutdown. No other pumps or valves appear on this drawing.
205201-3	205301-3	Reactor Coolant	12 (22) & 14 (24) steam generator, reactor coolant pump, and reactor and connecting piping. The reactor coolant pump is not required for plant safe shutdown. No other pumps or valves appear on this drawing.
205202-1	205302-1	S. G. F & Cond.	Condenser, condensate pumps & valves. This equipment is not required for plant safe shutdown.
205202-2	205302-2	S. G. F & Cond.	Low pressure feedwater heaters, steam generator feed pumps. This equipment is not required for plant safe shutdown.
205202-3	205302-3	S. G. F & Cond.	Steam generator feed pumps and feedwater piping. Certain valves required and included in IST Program Basis.
205203-1	205303-1	Main Steam	Main steam reliefs and auxiliary feed pump turbine. Included in IST Program Basis.
205203-2	205303-2	Main Steam	Main steam reliefs and auxiliary feed pump turbine. Included in IST Program Basis.
205203-3	205303-3	Main Steam	Main steam supply to the high pressure turbine and steam generator feed pumps. This equipment is not required for plant safe shutdown.
205203-4	205303-4	Main Steam	Steam supply to moisture separator reheaters and low pressure turbine. This equipment is not required for plant safe shutdown.
205203-5	205303-5	Main Steam	Steam supply to moisture separator reheaters and low pressure turbine. This equipment is not required for plant safe shutdown.

Table 1-1 System and P&ID Listing - Units 1 & 2 ASME (Continued)

Unit 1	Unit 2	System Name	Analysis
205203-6	205303-6	Main Steam	Steam supply to moisture separator reheaters, low pressure turbine and radiation monitors. This equipment is not required for plant safe shutdown.
205216-1	205216-2	Chilled Water	Chilled water supply to control room air conditioning system. Included in IST Program Basis.
205216-3	205216-3	Chilled Water	Chilled water supply to emergency control air compressor cooling. Both units on this sheet. Included in IST Program Basis.
205216-4		Chilled Water	Air conditioning for various plant areas. This equipment is not required for plant safe shutdown.
205216-5		Chilled Water	Clean facilities building air conditioning. This equipment is not required for plant safe shutdown.
205216-6		Chilled Water	Sample cooler pumps and coils. This equipment is not required for plant safe shutdown.
205216-7		Chilled Water	Sample cooler pumps and coils. This equipment is not required for plant safe shutdown.
205216-8		Chilled Water	Details of equipment shown on Sheets 1 & 2.
205217-1		Compressed Air	Air compressors and distribution piping. This equipment is not required for plant safe shutdown.
205217-2	205317-1	Compressed Air	Station air receivers and containment penetration test connections. The test connections are included in the IST Program Basis.
205217-3	205317-2	Compressed Air	Compressed air distribution system and air drop stations. Primary containment penetration isolation is included in the IST Program Basis.
205217-4		Compressed Air	Compressed air dryers. This equipment is not required for plant safe shutdown.
205217-5		Compressed Air	Machine shop compressed air drops. This equipment is not required for plant safe shutdown.

Table 1-1 System and P&ID Listing - Units 1 & 2 ASME (Continued)

Unit1	Unit 2	System Name	Analysis
205222-1	205222-2	Fire Protection	Fire water distribution. Only primary containment penetration isolation valves are included in the IST Program Basis.
205222-3		Fire Protection	Fire protection hose stations. This equipment is not required for plant safe shutdown.
205222-4		Fire Protection	Fire hose stations for both units. Both units can supply water to the auxiliary feedwater system per the FSAR. No pumps or valves shown on this drawing are required to operate for plant safe shutdown.
205222-5		Fire Protection	Fire hose stations and sprinkler system supply. This equipment is not required for plant safe shutdown.
205222-6		Fire Protection	Fire hose stations and sprinkler system supply. This equipment is not required for plant safe shutdown.
205225-1	205325-1	S.G. Drn & Bldwn	Steam generator blowdown lines and blowdown demineralizer. Blowdown isolation valves are on Sheet 2. This equipment is not required for plant safe shutdown.
205225-2	205325-2	S.G. Drn & Bldwn	Steam generator blowdown lines and equipment. The blowdown isolation valves are included in the IST Program Basis.
205228-1	205328-1	CVC	Boric acid transfer pumps and piping. Included in the IST Program Basis.
205228-2	205328-2	CVC	Charging pumps and charging piping. Included in the IST Program Basis.
205228-3	205328-3	CVC	Reactor coolant pump bearing cooling water supplies. Included in the IST Program Basis.
205229-1	205329-1	CVC	Boric acid process recovery equipment. This quipment is not required for plant safe shutdown.
205229-2	205329-2	CVC	Boric acid process recovery equipment. This equipment is not required for plant safe shutdown.

Table 1-1 System and P&ID Listing - Units 1 & 2 ASME (Continued)

Unit 1	Unit 2	System Name	Analysis
205229-3	205329-3	CVC	Boric acid process recovery equipment. This equipment is not required for plant safe shutdown.
205231-1	205331-1	Comp. Cooling	Cooling system for critical safety related equipment. Included in the IST Program Basis.
205231-2	205331-2	Comp. Cooling	Header piping for critical safety related equipment. No valves shown on this drawing need to operate for plant safe shutdown.
205231-3	205331-3	Comp. Cooling	Reactor coolant pump cooling and penetration isolation. Included in the IST Program Basis.
205232-1	205332-1	Resid. Heat Rem.	Critical safety system. Included in the IST Program Basis.
205232-2	205332-2	Resid. Heat Rem.	Critical safety system. Included in the IST Program Basis.
205233-1	205333-1	Spent Fuel	System is not required for plant safe shutdown. Fuel pool maintenance is not an emergency event. Isolation valves are included in the IST Program Basis.
205234-1	205334-1	Safety Injection	Safety injection equipment. Included in the IST Program Basis.
205234-2	205334-2	Safety Injection	Safety injection pumps and piping. Included in the IST Program Basis.
205234-3	205334-3	Safety Injection	Safety injection piping. Included in the IST Program Basis.
205234-4	205334-4	Safety Injection	Safety injection accumulators and piping. Included in the IST Program Basis.
205235-1	205335-1	Cont. Spray	Containment spray pumps and equipment Included in the IST Program Basis.
205236-1	205336-1	Aux.Feedwater	Aux feedwater pumps and piping. Included in the IST Program Basis.

Table 1-1 System and P&ID Listing - Units 1 & 2 ASME (Continued)

Unit 1	Unit 2	System Name	Analysis
205238-1	205338-1	Containment Vent.	Ventilation systems not in scope of Code Sections IWP and IWV. Radiation monitoring cooling isolation valves included in the IST Program Basis.
205238-2	205338-2	Containment Vent.	Ventilation system. No pumps or valves.
205238-3		Containment Vent.	Ventilation system. No pumps or valves.
205239-1	205339-1	Waste Disp. Liquid	Radioactive waste processing. This equipment is not required for plant safe shutdown.
205239-2	205339-2	Waste Disp. Liquid	Radioactive waste processing. This equipment is not required for plant safe shutdown.
205239-3	205339-3	Waste Disp. Liquid	Radioactive waste processing. Containment isolation valves are included in the IST Program Basis.
205239-4		Waste Disp. Liquid	Radioactive waste processing. This equipment is not required for plant safe shutdown.
205239-5		Waste Disp. Liquid	Radioactive waste processing. This equipment is not required for plant safe shutdown.
205242-1	205342-1	Service Water Nuc.	Service water pumps and piping. Included in the IST Program Basis.
205242-2	205342-2	Service Water Nuc.	Service water pumps and piping. Included in the IST Program Basis.
205242-3	205342-3	Service Water Nuc.	Service water distribution piping to diesels and injection pumps. Included in the IST Program Basis.
205242-4	205342-4	Service Water Nuc.	Service water distribution piping to injection pump coolers. Included in the IST Program Basis.
205242-5	205342-5	Service Water Nuc.	Service water distribution piping to chillers. Included in the IST Program Basis.
205242-6	205342-6	Service Water Nuc.	Service water distribution piping to containment fan coil units. Included in the IST Program Basis.
	205342-7	Service Water Nuc.	Service water distribution piping to containment fan coil units. Included in the IST Program Basis.

Table 1-1 System and P&ID Listing - Units 1 & 2 ASME (Continued)

Unit 1	Unit 2	System Name	Analysis
205244-1	205344-1	Sampling	Sampling not required for safe shutdown. Containment isolation valves are included in the IST Program Basis.
205244-2	205344-2	Sampling	Sample sink drains. Sampling not required for safe shutdown.
205244-3	205344-3	Sampling	Sample panel cooling. Penetration isolation valves included in the IST Program Basis
205244-4	205344-4	Sampling	Sample lines. This equipment is not required for plant safe shutdown.
205244-5		Sampling	Sample panel drains.This equipment is not required for plant safe shutdown.
205246-1	205246-2	Demin. Water	Demineralized water distribution is not require for safe shutdown. Penetration isolation valves are included in the IST Program Basis.
205247-1	205347-1	Control Air	Control air distribution to panels. Not required for safe shutdown. Penetration isolation valves included in the IST Program Basis.
205247-2	205347-2	Control Air	Control air compressor, dryer, and distribution piping. Not required for safe shutdown.
205247-3	205347-3	Control Air	PORV accumulators, accumulator valves, and penetration isolation valves are included in the IST Program Basis.

Table 1-2 System and P&ID Listing - Units 1 & 2 Non-ASME Code Systems in Testing Program

P&ID-Sheet		System Name	Reason Included
205209-4	205209-4	Circulating Water	Added to cover CL valves in piping connected to SW.
205217-2	205317-2	Compressed Air	Added in order to cover containment pressure test connections.
205238-1	205338-1	Reactor Containment Vent	Added to cover Radiation Monitoring System Sample Inlet & Outlet Isolation Valves.
205238-2	205338-2	Reactor Containment Vent	Added to cover Containment Purge Valves.
205241-1	205241-4	Diesel Engine Auxiliaries	System added to comply with NUREG-1482 requirements
205241-2	205241-5	Diesel Engine Auxiliaries	System added to comply with NUREG-1482 requirements
205241-3	205241-6	Diesel Engine Auxiliaries	System added to comply with NUREG-1482 requirements
205249-2	205249-3	Fuel Oil	System added to comply with NUREG-1482 requirements

TABLE 2-1

Salem Unit 1

PUMP TEST TABLE

TABLE 2-1 - PUMP TEST TABLE
SALEM NUCLEAR PLANT - UNIT 1

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID	TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
1AFE4	**Auxiliary Feedwater Pump 11**												
205236-1	*Auxiliary Feedwater*	*D2*	*3*	*Horizontal Centrifugal*	*Motor*	*Byron Jackson Model 3x6x9E Type*							
							S1.OP-ST.AF-0005(Q)	DP, Q, V	CS-F		100819	TP-2	AUGMENTED FULL FLOW
							S1.OP-ST.AF-0001(Q)	DP, Q, V	Q-R		100692		
1AFE5	**Auxiliary Feedwater Pump 12**												
205236-1	*Auxiliary Feedwater*	*D5*	*3*	*Horizontal Centrifugal*	*Motor*	*Byron Jackson Model 3x6x9E Type*							
							S1.OP-ST.AF-0005(Q)	DP, Q, V	CS-F		100819	TP-2	AUGMENTED FULL FLOW
							S1.OP-ST.AF-0002(Q)	DP, Q, V	Q-R		100693		
1AFE6	**Auxiliary Feedwater Pump 13**												
205236-1	*Auxiliary Feedwater*	*D8*	*3*	*Horizontal Centrifugal*	*Turbine*	*Byron-Jackson Model 4x6x9d Type*							
							S1.OP-ST.AF-0007(Q)	N, DP, Q, V	CS-F		100515	TP-2	AUGMENTED FULL FLOW
							S1.OP-ST.AF-0003(Q)	N, DP, Q, V	Q-R		100694		
1CCE2	**Component Cooling Pump 11**												
205231-1	*Component Cooling*	*E4*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3405(L)*							
							S1.OP-ST.CC-0001(Q)	DP, Q, V	Q-F		100697	TP-3	
1CCE3	**Component Cooling Pump 13**												
205231-1	*Component Cooling*	*B4*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3405(L)*							
							S1.OP-ST.CC-0003Q)	DP, Q, V	Q-F		100699	TP-3	
1CCE4	**Component Cooling Pump 12**												
205231-1	*Component Cooling*	*D4*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3405(L)*							
							S1.OP-ST.CC-0002(Q)	DP, Q, V	Q-F		100698	TP-3	

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID	TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
1CHE5	**Chilled Water Pump 11**												
205216-1	*Chilled Water*	*F3*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3196MT*							
							S1.OP-ST.CH-0001(Q)	DP, Q, V	Q-F		100700		
1CHE6	**Chilled Water Pump 12**												
205216-1	*Chilled Water*	*F5*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3196MT*							
							S1.OP-ST.CH-0002(Q)	DP, Q, V	Q-F		100701		
1CSE1	**Containment Spray Pump 11**												
205235-1	*Containment Spray*	*H4*	*2*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3415*							
							S1.OP-ST.CS-0001(Q)	DP, Q, V	Q-R		100707		
							S1.OP-ST.CS-0005(Q)	DP, Q, V	RF-F		100754	TP-2	AUGMENTED FULL FLOW
1CSE2	**Containment Spray Pump 12**												
205235-1	*Containment Spray*	*E4*	*2*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3415*							
							S1.OP-ST.CS-0002(Q)	DP, Q, V	Q-R		100708		
							S1 OP-ST.CS-0005(Q)	DP, Q, V	RF-F		100754	TP-2	AUGMENTED FULL FLOW
1CVE4	**Boric Acid Transfer Pump 11**												
205228-1	*Chemical & Volume Cont*	*E1*	*2*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3196MT*							
							S1.OP-ST.CVC-0001(Q)	DP, Q, V	Q-F		100695		
1CVE5	**Boric Acid Transfer Pump 12**												
205228-1	*Chemical & Volume Cont*	*E3*	*2*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3196MT*							
							S1.OP-ST.CVC-0002(Q)	DP, Q, V	Q-F		100696		

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID	
1CVE20	**Charging and Safety Injection Pump 11**						
205228-2	*Chemical & Volume Cont*	*D3*	*2*	*Horizontal Centrifugal*	*Motor*	*Pacific Model IJ (11 Stage)*	

TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0003(Q)	DP, Q, V	Q-R		100702		
S1.OP-ST.SJ-0016(Q)	DP, Q, V	RF-F		101056	TP-2	AUGMENTED FULL FLOW

1CVE21	**Charging and Safety Injection Pump 12**						
205228-2	*Chemical & Volume Cont*	*C3*	*2*	*Horizontal Centrifugal*	*Motor*	*Pacific Model IJ (11 Stage)*	

S1.OP-ST.CVC-0004(Q)	DP, Q, V	Q-R		100703		
S1.OP-ST.SJ-0016(Q)	DP, Q, V	RF-F		101056	TP-2	AUGMENTED FULL FLOW

1CVE22	**Charging Pump 13**						
205228-2	*Chemical & Volume Cont*	*B3*	*2*	*Positive Displacement*	*Motor*	*Union Model QX-300*	

S1.OP-ST.CVC-0005(Q)	P, Q, N, V	Q		100704		

1DFE9	**Fuel Oil Transfer Pump 11**						
205249-2	*Fuel Oil*	*A5*	*N*	*Positive Displacement*	*Motor*	*Viking Model HL475M*	AUGMENTED

S1.OP-ST.DG-0004(Q)	P, Q, V	Q		100577		

1DFE10	**Fuel Oil Transfer Pump 12**						
205249-2	*Fuel Oil*	*A7*	*N*	*Positive Displacement*	*Motor*	*Viking Model HL475M*	AUGMENTED

S1.OP-ST.DG-0005(Q)	P, Q, V	Q		101127		

1RHE1	**Residual Heat Removal Pump 11**					
205232-1	*Residual Heat Removal*	*E3*	*2*	*Vertical Centrifugal*	*Motor*	*Ingersoll-Rand Model 8x20W*

S1.OP-ST.RHR-0001(Q)	DP, Q, V	CS-F		101316	TP-2	
S1.OP-ST.RHR-0001(Q)	DP, Q, V	Q-R		100705		

TABLE 2-1 - PUMP TEST TABLE

SALEM NUCLEAR PLANT - UNIT 1

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID	
1RHE2	**Residual Heat Removal Pump 12**						
205232-2	*Residual Heat Removal*	*E3*	*2*	*Vertical Centrifugal*	*Motor*	*Ingersoll-Rand Model 8x20W*	
TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS	
S1.OP-ST.RHR-0002(Q)	DP, Q, V	CS-F		101315	TP-2		
S1.OP-ST.RHR-0002(Q)	DP, Q, V	Q-R		100706			
1SFE5	**Spent Fuel Cooling Pump 11**						
205233	*Spent Fuel Cooling*	*E-7*	*3*	*Horizontal Centrifugal*	*Motor*	*Goulds Model 3405*	
S1.OP-ST.SF-0001(Q)	DP, Q, V	Q		(later)			
1SFE6	**Spent Fuel Cooling Pump 12**						
205233	*Spent Fuel Cooling*	*B-7*	*3*	*Horizontal Centrifugal*	*Motor*	*Goulds Model 3405*	
S2.OP-ST.SF-0001(Q)	DP, Q, V	Q		(later)			
1SJE2	**Safety Injection Pump 11**						
205234-2	*Safety Injection*	*E3*	*2*	*Horizontal Centrifugal*	*Motor*	*Pacific Model JTCH (10 Stage)*	
S1.OP-ST.SJ-0001(Q)	DP, Q, V	Q-R		100709			
S1.OP-ST.SJ-0014(Q)	DP, Q, V	RF-F		100097	TP-2	AUGMENTED FULL FLOW	
1SJE3	**Safety Injection Pump 12**						
205234-2	*Safety Injection*	*E6*	*2*	*Horizontal Centrifugal*	*Motor*	*Pacific Model JTCH (10 Stage)*	
S1.OP-ST.SJ-0002(Q)	DP, Q, V	Q-R		100710			
S1.OP-ST.SJ-0014(Q)	DP, Q, V	RF-F		100097	TP-2	AUGMENTED FULL FLOW	
1SWE1	**Service Water Pump 11**						
205242-1	*Service Water Nuclear A*	*C5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*	
S1 OP-ST.SW-0001(Q)	DP, Q, V	Q-F		100711			

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID
1SWE2	**Service Water Pump 12**					
205242-1	*Service Water Nuclear A*	*E5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*

TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0002(Q)	DP, Q, V	Q-F		100712		
1SWE3	**Service Water Pump 13**					
205242-1	*Service Water Nuclear A*	*G5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*
S1.OP-ST.SW-0003(Q)	DP, Q, V	Q-F		100713		
1SWE4	**Service Water Pump 14**					
205242-2	*Service Water Nuclear A*	*C5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*
S1.OP-ST.SW-0004(Q)	DP, Q, V	Q-F		100714		
1SWE5	**Service Water Pump 15**					
205242-2	*Service Water Nuclear A*	*E5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*
S1.OP-ST.SW-0005(Q)	DP, Q, V	Q-F		100715		
1SWE6	**Service Water Pump 16**					
205242-2	*Service Water Nuclear A*	*G5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*
S1.OP-ST.SW-0006(Q)	DP, Q, V	Q-F		100716		

TABLE 2-2

Salem Unit 2

PUMP TEST TABLE

TABLE 2-2 - PUMP TEST TABLE
SALEM NUCLEAR PLANT - UNIT 2

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID	TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
2AFE4	**Auxiliary Feedwater Pump 21**												
205336-1	*Auxiliary Feedwater*	*D2*	*3*	*Horizontal Centrifugal*	*Motor*	*Byron Jackson Model 3x6x9E Type*							
							S2.OP-ST.AF-0005(Q)	DP, Q, V	CS-F		100820	TP-2	AUGMENTED FULL FLOW
							S2.OP.ST.AF-0001(Q)	DP, Q, V	Q-R		100666		
2AFE5	**Auxiliary Feedwater Pump 22**												
205336-1	*Auxiliary Feedwater*	*D5*	*3*	*Horizontal Centrifugal*	*Motor*	*Ingersoll-Rand 3HMTA8 (8-stage)*							
							S2.OP-ST.AF-0005(Q)	DP, Q, V	CS-F		100820	TP-2	AUGMENTED FULL FLOW
							S2.OP-ST.AF-0002(Q)	DP, Q, V	Q-R		100667		
2AFE6	**Auxiliary Feedwater Pump 23**												
205336-1	*Auxiliary Feedwater*	*D8*	*3*	*Horizontal Centrifugal*	*Turbine*	*Byron-Jackson Model 4x6x9D Type*							
							S2.OP-ST.AF-0007(Q)	N, DP, Q,V	CS-F		100376	TP-2	AUGMENTED FULL FLOW
							S2.OP-ST.AF-0003(Q)	N, DP, Q, V	Q-R		100668		
2CCE2	**Component Cooling Pump 21**												
205331-1	*Component Cooling*	*E4*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3405(L)*							
							S2.OP-ST.CC-0001(Q)	DP, Q, V	Q-F		100673	TP-3	
2CCE3	**Component Cooling Pump 23**												
205331-1	*Component Cooling*	*B4*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3405(L)*							
							S2.OP-ST.CC-0003(Q)	DP, Q, V	Q-F		100675	TP-3	
2CCE4	**Component Cooling Pump 22**												
205331-1	*Component Cooling*	*D4*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3405(L)*							
							S2.OP-ST.CC-0002(Q)	DP, Q, V	Q-F		100674	TP-3	

TABLE 2-2 - PUMP TEST TABLE
SALEM NUCLEAR PLANT - UNIT 2

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID	
2CHE6	**Chilled Water Pump 21**						
205216-2	*Chilled Water*	*F3*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3196MT*	

TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CH-0001(Q)	DP, Q, V	Q-F		100689		

2CHE7	**Chilled Water Pump 22**						
205216-2	*Chilled Water*	*F5*	*3*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3196MT*	

S2.OP-ST.CH-0002(Q)	DP, Q, V	Q-F		100690		

2CSE1	**Containment Spray Pump 21**						
205335-1	*Chilled Water*	*H4*	*2*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3415*	

S2.OP-ST.CS-0001(Q)	DP, Q, V	Q-R		100664		
S2.OP-ST.CS-0005(Q)	DP, Q, V	RF-F		100636	TP-2	AUGMENTED FULL FLOW

2CSE2	**Containment Spray Pump 22**						
205335-1	*Containment Spray*	*E4*	*2*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3415*	

S2.OP-ST.CS-0002(Q)	DP, Q, V	Q-R		100672		
S2.OP-ST.CS-0005(Q)	DP, Q, V	RF-F		100636	TP-2	AUGMENTED FULL FLOW

2CVE4	**Boric Acid Transfer Pump 21**						
205328-1	*Chemical & Volume Cont*	*E1*	*2*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3196MT*	

S2.OP-ST.CVC-0001(Q)	DP, Q, V	Q-F		100687		

2CVE5	**Boric Acid Transfer Pump 22**						
205328-1	*Chemical & Volume Cont*	*E3*	*2*	*Horizontal Centrifugal*	*Motor*	*Gould Model 3196MT*	

S2.OP-ST.CVC-0002(Q)	DP, Q, V	Q-F		100688		

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID	
2CVE20	**Charging and Safety Injection Pump 21**						
205328-2	*Chemical & Volume Cont*	*D3*	*2*	*Horizontal Centrifugal*	*Motor*	*Pacific Model IJ (11 Stage)*	

TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0003(Q)	DP, Q, V	Q-R		100676		
S2.OP-ST.SJ-0016(Q)	DP, Q, V	RF-F		101048	TP-2	AUGMENTED FULL FLOW

2CVE21	**Charging and Safety Injection Pump 22**						
205328-2	*Chemical & Volume Cont*	*C3*	*2*	*Horizontal Centrifugal*	*Motor*	*Pacific Model IJ (11 Stage)*	

S2.OP-ST.CVC-0004(Q)	DP, Q, V	Q-R		100677		
S2.OP-ST.SJ-0016(Q)	DP, Q, V	RF-F		101048	TP-2	AUGMENTED FULL FLOW

2CVE22	**Charging Pump 23**						
205328-2	*Chemical & Volume Cont*	*B3*	*2*	*Positive Displacement*	*Motor*	*Union Model QX-300*	

S2.OP-ST.CVC-0005(Q)	P, Q, N, V	Q		100678		

2DFE9	**Fuel Oil Transfer Pump 22**						
205249-3	*Fuel Oil*	*A5*	*N*	*Positive Displacement*	*Motor*	*Viking Model HL475M*	AUGMENTED

S2.OP-ST.DG-0004(Q)	P, Q, V	Q		100514		

2DFE10	**Fuel Oil Transfer Pump 21**						
205249-3	*Fuel Oil*	*A7*	*N*	*Positive Displacement*	*Motor*	*Viking Model HL475M*	AUGMENTED

S2.OP-ST.DG-0005(Q)	P, Q, V	Q		101126		

2RHE1	**Residual Heat Removal Pump 21**					
205332-1	*Residual Heat Removal*	*E3*	*2*	*Vertical Centrifugal*	*Motor*	*Ingersoll-Rand Model 8x20W*

S2.OP-ST.RHR-0001(Q)	DP, Q, V	CS-F		101317	TP-2
S2.OP-ST.RHR-0001(Q)	DP, Q, V	Q-R		100679	

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID	
2RHE2	**Residual Heat Removal Pump 22**						
205332-2	*Residual Heat Removal*	*E3*	*2*	*Vertical Centrifugal*	*Motor*	*Ingersoll-Rand Model 8x20W*	
S2.OP-ST.RHR-0002(Q)	DP, Q, V	CS-F			101318	TP-2	
S2.OP-ST.RHR-0002(Q)	DP, Q, V	Q-R			100680		
2SFE5	**Spent Fuel Cooling Pump 21**						
205233	*Spent Fuel Cooling*	*E-7*	*3*	*Horizontal Centrifugal*	*Motor*	*Goulds Model 3405*	
S1.OP-ST.SF-0002(Q)	DP, Q, V	Q			(later)		
2SFE6	**Spent Fuel Cooling Pump 22**						
205233	*Spent Fuel Cooling*	*B-7*	*3*	*Horizontal Centrifugal*	*Motor*	*Goulds Model 3405*	
S2.OP-ST.SF-0002(Q)	DP, Q, V	Q			(later)		
2SJE2	**Safety Injection Pump 21**						
205334-2	*Safety Injection*	*E3*	*2*	*Horizontal Centrifugal*	*Motor*	*Pacific Model JTCH (10 Stage)*	
S2.OP-ST.SJ-0001(Q)	DP, Q, V	Q-R			100669		
S2.OP-ST.SJ-0014(Q)	DP, Q, V	RF-F			100154	TP-2	AUGMENTED FULL FLOW
2SJE3	**Safety Injection Pump 22**						
205334-2	*Safety Injection*	*E6*	*2*	*Horizontal Centrifugal*	*Motor*	*Pacific Model JTCH (10 Stage)*	
S2.OP-ST.SJ-0002(Q)	DP, Q, V	Q-R			100670		
S2.OP-ST.SJ-0014(Q)	DP, Q, V	RF-F			100154	TP-2	AUGMENTED FULL FLOW
2SWE1	**Service Water Pump 21**						
205342-1	*Service Water Nuclear A*	*C5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*	
S2.OP-ST SW-0001(Q)	DP, Q, V	Q-F			100681		

TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS

PUMP NO / P + ID No	PUMP DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	Pump Type	Driver	Mfg Model ID	TEST PROC	TEST TYPE	TEST FREQ.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
2SWE2	**Service Water Pump 22**												
205342-1	*Service Water Nuclear A*	*E5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*	S2.OP-ST.SW-0002(Q)	DP, Q, V	Q-F		100682		
2SWE3	**Service Water Pump 23**												
205342-1	*Service Water Nuclear A*	*G5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*	S2.OP-ST.SW-0003(Q)	DP, Q, V	Q-F		100683		
2SWE4	**Service Water Pump 24**												
205342-2	*Service Water Nuclear A*	*C5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*	S2.OP-ST.SW-0004(Q)	DP, Q, V	Q-F		100684		
2SWE5	**Service Water Pump 25**												
205342-2	*Service Water Nuclear A*	*E5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*	S2.OP-ST.SW-0005(Q)	DP, Q, V	Q-F		100685		
2SWE6	**Service Water Pump 26**												
205342-2	*Service Water Nuclear A*	*G5*	*3*	*Vertical Centrifugal*	*Motor*	*Johnston Model 28NMC - 3 Stage*	S2.OP-ST.SW-0006(Q)	DP, Q, V	Q		100686		

TABLE 3-1

Salem Unit 1

VALVE TEST TABLE

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11AF4	**11 AUX FDWTR PMP SPLY CKVL**									
205236-1	*Auxiliary Feedwater*	*D1*	*3*	*C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0004(Q)	CTC	Q				100717		
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-01			100819		
S1.OP-ST.AF-0001(Q)	PS	Q				100692		

12AF4	**12 AUX FDWTR PMP SPLY CKVL**									
205236-1	*Auxiliary Feedwater*	*D4*	*3*	*C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0004(Q)	CTC	Q				100717		
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-01			100819		
S1.OP-ST.AF-0002(Q)	PS	Q				100693		

13AF4	**13 AUX FDWTR PMP SUCT CKVL**									
205236-1	*Auxiliary Feedwater*	*D7*	*3*	*C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0004(Q)	CTC	Q				100717		
S1.OP-ST.AF-0007(Q)	CTO	CS	CS-01			100515		
S1.OP-ST.AF-0003(Q)	PS	Q				100694		

11AF8	**11 AUX FDWTR PMP DISCH CKVL**									
205236-1	*Auxiliary Feedwater*	*E3*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-02			100819		

12AF8	**12 AUX FDWTR PMP DISCH CKVL**									
205236-1	*Auxiliary Feedwater*	*E6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-02			100819		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13AF8	**13 AUX FDWTR PMP DISCH CKVL**									
205236-1	*Auxiliary Feedwater*	*E8*	*3*	C	*CK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0007(Q)	CTO	CS	CS-02			100515		
S1.OP-ST.AF-0003(Q)	PS	Q				100694		
11AF11	**11 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**							
205236-1	*Auxiliary Feedwater*	*G7*	*3*	B	*GB*	*AIR*	*4*	*O* / *O/C* / *Active*
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		
12AF11	**12 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**							
205236-1	*Auxiliary Feedwater*	*E6*	*3*	B	*GB*	*AIR*	*4*	*O* / *O/C* / *Active*
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		
13AF11	**13 AUX FDWTR STM GEN AIR OPRD GLB VLV**							
205236-1	*Auxiliary Feedwater*	*F7*	*3*	B	*GB*	*AIR*	*4*	*O* / *O/C* / *Active*
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		
14AF11	**14 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**							
205236-1	*Auxiliary Feedwater*	*G6*	*3*	B	*GB*	*AIR*	*4*	*O* / *O/C* / *Active*
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11AF21	**11 AUX FDWTR STM GEN AIR OPRD GLB VLV**									
205236-1	*Auxiliary Feedwater*	*H6*	*3*	B	*GB*	*AIR*	*4*	*C*	*M/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0004(Q)	FSTO	Q				100717		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		
S1.OP-ST.AF-0004(Q)	STO	Q				100717		

12AF21	**12 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205236-1	*Auxiliary Feedwater*	*F6*	*3*	B	*GB*	*AIR*	*4*	*C*	*M/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0004(Q)	FSTO	Q				100717		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		
S1.OP-ST.AF-0004(Q)	STO	Q				100717		

13AF21	**13 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205236-1	*Auxiliary Feedwater*	*F6*	*3*	B	*GB*	*AIR*	*4*	*C*	*M/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0004(Q)	FSTO	Q				100717		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		
S1.OP-ST.AF-0004(Q)	STO	Q				100717		

14AF21	**14 AUX FDTR STM GEN INLET AIR OPRD GLB VLV**									
205236-1	*Auxiliary Feedwater*	*G4*	*3*	B	*GB*	*AIR*	*4*	*C*	*M/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0004(Q)	FSTO	Q				100717		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		
S1.OP-ST.AF-0004(Q)	STO	Q				100717		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11AF23	**11 AUX FDWTR STM GEN INLET SCHK**									
205236-1	*Auxiliary Feedwater*	*H10*	*2*	*C*	*SCK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0006(Q)	CTC	Q				101150		
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-03			100819		

12AF23	**12 AUX FDWTR STM GEN INLET SCHK VLV**									
205236-1	*Auxiliary Feedwater*	*F10*	*2*	*C*	*SCK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0006(Q)	CTC	Q				101150		
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-03			100819		

13AF23	**13 AUX FDWTR STM GEN INLET SCHK VLV**									
205236-1	*Auxiliary Feedwater*	*F10*	*2*	*C*	*SCK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0006(Q)	CTC	Q				101150		
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-03			100819		

14AF23	**14 AUX FDWTR STM GEN INLET SCHK VLV**									
205236-1	*Auxiliary Feedwater*	*G10*	*2*	*C*	*SCK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0006(Q)	CTC	Q				101150		
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-03			100819		

11AF40	**11 AUX FDWTR PMP DISCH AIR OPRD GLOBE VLV**									
205236-1	*Auxiliary Feedwater*	*D4*	*3*	*B*	*GB*	*AIR*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0004(Q)	FSTO	Q				100717		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		
S1.OP-ST.AF-0004(Q)	STO	Q				100717		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12AF40	**12 AUX FDWTR PMP DISCH AIR OPRD GLOBE VLV**									
205236-1	*Auxiliary Feedwater*	*D6*	*3*	B	*GB*	*AIR*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0004(Q)	FSTO	Q				100717		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STC	Q				100717		
S1.OP-ST.AF-0004(Q)	STO	Q				100717		

11AF52	**11 AUX FDWTR PMP SUCT AIR OPRD GATE VLV**									
205236-1	*Auxiliary Feedwater*	*E1*	*3*	B	*PL*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STO	Q				100717		

12AF52	**12 AUX FDWTR PMP SUCT AIR OPRD GATE VLV**									
205236-1	*Auxiliary Feedwater*	*E4*	*3*	B	*PL*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STO	Q				100717		

13AF52	**13 AUX FDWTR PMP SUCT AIR OPRD GATE VLV**									
205236-1	*Auxiliary Feedwater*	*E7*	*3*	B	*PL*	*AIR*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0004(Q)	STO	Q				100717		

11AF53	**11 AUX FDWTR PMP SUCT CKVL**									
205236-1	*Auxiliary Feedwater*	*D1*	*3*	C	*CK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PM.ZZ-0044(Q)	CTO	SAM		RJ-01		202878	TP-5	Disassembly & Inspection Method

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12AF53	**12 AUX FDWTR PMP SUCT CKVL**									
205236-1	*Auxiliary Feedwater*	*D4*	*3*	*C*	*CK*	*SELF*	*6*	*C*	*O*	*Active*
SC.MD-PM.ZZ-0044(Q)	CTO / SAM		RJ-01		202877		TP-5	Disassembly & Inspection Method		
13AF53	**13 AUX FDWTR PMP SUCT CKVL**									
205236-1	*Auxiliary Feedwater*	*D7*	*3*	*C*	*CK*	*SELF*	*8*	*C*	*O*	*Active*
SC.MD-PM.ZZ-0044(Q)	CTO / SAM		RJ-01		202876		TP-5	Disassembly & Inspection Method		
1AF71	**1 AUX FDWTR STOR INLET FROM DMNRLZD WTR CKVL**									
205236-1	*Auxiliary Feedwater*	*G2*	*3*	*C*	*CK*	*SELF*	*16*	*C*	*C*	*Passive*
1AF72	**1 AUX FDWTR STOR TK DOM WTR TKS SPLY CKVL**									
205236-1	*Auxiliary Feedwater*	*G1*	*3*	*C*	*CK*	*SELF*	*16*	*C*	*C*	*Passive*
1AF92	**Manual Valve Isolation for Spool Piece Connecting AF to SW**									
205236-1	*Auxiliary Feedwater*	*E1*	*3*	*B*	*GT*	*MAN*	*8*	*LC*	*O/C*	*Active*
S1.OP-ST.AF-0004(Q)	FSO / Q				100717					
11AF920	**11 AUX FDWTR STM GEN INLET CKVL**									
205236-1	*Auxiliary Feedwater*	*H6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*
S1.OP-ST.AF-0005(Q)	CTO / CS	CS-04			100819					
12AF920	**12 AUX FDWTR STM GEN INLET CKVL**									
205236-1	*Auxiliary Feedwater*	*F5*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*
S1.OP-ST.AF-0005(Q)	CTO / CS	CS-04			100819					

TEST PROC | TEST TYPE | TEST FREQ. | C.S. JUST. | R.O. JUST. | REL. REQ. | RECUR. TASK | TECH. POS. | COMMENTS

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13AF920	**13 AUX FDWTR STM GEN INLET CKVL**									
205236-1	*Auxiliary Feedwater*	*F5*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-04			100819		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14AF920	**14 AUX FDWTR STM GEN INLET CKVL**									
205236-1	*Auxiliary Feedwater*	*G5*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0005(Q)	CTO	CS	CS-04			100819		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11AF921	**11 AUX FDWTR STM GEN INLET CKVL**									
205236-1	*Auxiliary Feedwater*	*H6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0005(Q)	CTC	CS	CS-05			100819		
S1.OP-ST.AF-0007(Q)	CTO	CS	CS-05			100515		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12AF921	**12 AUX FDWTR STM GEN INLET CKVL**									
205236-1	*Auxiliary Feedwater*	*E7*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0005(Q)	CTC	CS	CS-05			100819		
S1.OP-ST.AF-0007(Q)	CTO	CS	CS-05			100515		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13AF921	**13 AUX FDWTR STM GEN INLET CKVL**									
205236-1	*Auxiliary Feedwater*	*F6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0005(Q)	CTC	CS	CS-05			100819		
S1.OP-ST.AF-0007(Q)	CTO	CS	CS-05			100515		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14AF921	**14 AUX FDWTR STM GEN INLET CKVL**									
205236-1	*Auxiliary Feedwater*	*G7*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0005(Q)	CTC	CS	CS-05			100819		
S1.OP-ST.AF-0007(Q)	CTO	CS	CS-05			100515		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11AF923	**Manual Cross-Tie Between AF Feeds to Steam Generator 13 and Steam Generator 14**									
205236-1	*Auxiliary Feedwater*	*F5*	*3*	B	*GT*	*MAN*	*3*	*C*	*C*	*Passive*
								No inservice testing required for this component		
12AF923	**Manual Cross-Tie Between AF Feeds to Steam Generator 13 and Steam Generator 14**									
205236-1	*Auxiliary Feedwater*	*F5*	*3*	B	*GT*	*MAN*	*3*	*C*	*C*	*Passive*
								No inservice testing required for this component		
11BF13	**11 STM GEN FEED & COND ST GEN FDWTR INLET MOTOR OPERATED VALVE**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*D6*	*N*	B	*GT*	*MO*	*14*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-06			100554		

12BF13	**12 STM GEN FEED & COND STGEN FDW INLET STOP MOV**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*D8*	*N*	B	*GT*	*MO*	*14*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-06			100554		

13BF13	**13 STM GEN FEED & COND STGEN FDW INLET MOTOR OPERATED ISLN VALVE**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*D3*	*N*	B	*GT*	*MO*	*14*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-06			100554		

14BF13	**14 STM GEN FEED & COND STGEN FDW INLET MOTOR OPERATED VALVE**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*D11*	*N*	B	*GT*	*MO*	*14*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-06			100554		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11BF19	**11 STM GEN FEED & COND STGEN FDW INLET AIR OPERATED VALVE**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*E4*	*N*	B	*GB*	*AIR*	*12*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-07			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-07			100554		

12BF19	**12 STM GEN FEED & COND STGEN FDW INLET AIR OPERATED GLB VALVE**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*E6*	*N*	B	*GB*	*AIR*	*12*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-07			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-07			100554		

13BF19	**13 STM GEN FEED & COND STGEN INLET AIR OPERATED VALVE**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*E1*	*N*	B	*GB*	*AIR*	*12*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-07			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-07			100554		

14BF19	**14 STM GEN FEED & COND STGEN FDW INLET AIR OPERATED VALVE**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*E9*	*N*	B	*GB*	*AIR*	*12*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-07			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-07			100554		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11BF22	**11 STM GEN FEED & COND STM GEN FDW INLET MOTOR OPRD STOP CHECK VLV**									
205202-3	*Steam Generator Feed and Condensate*	*F5*	*2*	B/C	*SCK*	*MO*	*14*	*O*	*C*	*Active*
12BF22	**12 STM GEN FEED & COND STGEN FDW INLET STOP CHECK VALVE**									
205202-3	*Steam Generator Feed and Condensate*	*F8*	*2*	B/C	*SCK*	*MO*	*14*	*O*	*C*	*Active*
13BF22	**13 STM GEN FEED & COND STGEN INLET MOTOR OPERATED STOP CHECK VALVE**									
205202-3	*Steam Generator Feed and Condensate*	*F2*	*2*	B/C	*SCK*	*MO*	*14*	*O*	*C*	*Active*
14BF22	**14 STM GEN FEED & COND STGEN FDW INLET MOTOR OPRD STOP CHECK VALVE**									
205202-3	*Steam Generator Feed and Condensate*	*F10*	*2*	B/C	*SCK*	*MO*	*14*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	CTC	CS	CS-08			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-08			100554		
S1.OP-ST.MS-0002(Q)	CTC	CS	CS-08			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-08			100554		
S1.OP-ST.MS-0002(Q)	CTC	CS	CS-08			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-08			100554		
S1.OP-ST.MS-0002(Q)	CTC	CS	CS-08			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-08			100554		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11BF40	**11 STM GEN FEED & COND STGEN INL CONT VLV 11BF19 BYP AIR OPRD VLV**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*E4*	*N*	B	*GB*	*AIR*	*4*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-09			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-09			100554		

12BF40	**12 STM GEN FEED & COND STGEN FDW INL CONT VLV BYP AIR OPRD GLB VLV**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*E6*	*N*	B	*GB*	*AIR*	*4*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-09			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-09			100554		

13BF40	**13 STM GEN FEED & COND STGEN INL CONT VLV 13BF19 BYP AIR OPRD VLV**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*E1*	*N*	B	*GB*	*AIR*	*4*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-09			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-09			100554		

14BF40	**14 STM GEN FEED & COND STGEN INL CONT VLV 14BF19 BYP AIR OPRD VLV**									*AUGMENTED*
205202-3	*Steam Generator Feed and Condensate*	*E9*	*N*	B	*GB*	*AIR*	*4*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-09			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-09			100554		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11CA330	**11 CONTAINMENT AIR HEADER 1A SUPPLY TO CONTAINMENT BUILDING AIR OPRD VLV**									
205247-1	*No. 1 Unit - React. Cont. & Penetration Area*	*E3*	*2*	*A*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290500		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		

12CA330	**12 CONT AIR HDR 1B SUPPLY TO CONTNMT BLDG AIR OPRD VLV**									
205247-1	*No. 1 Unit - React. Cont. & Penetration Area*	*D3*	*2*	*A*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290502		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		

11CA360	**11 CONT AIR HDR 1A CONTNMT BLDG CHECK VLV**									
205247-3	*No. 1 Unit - React. Cont. & Penetration Area*	*C1*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-02		290501		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290501		

12CA360	**12 CONT AIR HDR 1B CONTNMT BLDG CHECK VLV**									
205247-3	*No. 1 Unit - React. Cont. & Penetration Area*	*B1*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-02		290503		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290503		

1CA1714	**1 CONT AIR 100 ELEV AIR LOCK SUPPLY STOP VLV**									
205247-1	*No. 1 Unit - React. Cont. & Penetration Area*	*H3*	*2*	*A*	*GB*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290504		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CA1715	**1 CONT AIR 130 ELEV AIR LOCK SUPPLY STOP VLV**									
205247-1	*No. 1 Unit - React. Cont. & Penetration Area*	*H4*	*2*	*A*	*GB*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				209505		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CA1768	**CONTROL AIR ACCUMULATOR CHECK VALVE**									*AUGMENTED*
205247-3	*No. 1 Unit - React. Cont. & Penetration Area*	*H4*	*N*	*A/C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.RA-IS.PZR-0024(Q)	CTC	RF		RJ-03		101093		
SC.RA-IS.PZR-0024(Q)	LT	2YR				101093		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CA1769	**PORV CONTROL AIR SUPPLY CHECK VALVE**									*AUGMENTED*
205247-3	*No. 1 Unit - React. Cont. & Penetration Area*	*G5*	*N*	*A/C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.RA-IS.PZR-0024(Q)	CTC	RF		RJ-03		101093		
SC.RA-IS.PZR-0024(Q)	LT	2YR				101093		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CA1770	**CONTROL AIR ACCUMULATOR CHECK VALVE**									*AUGMENTED*
205247-3	*No. 1 Unit - React. Cont. & Penetration Area*	*H6*	*N*	*A/C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.RA-IS.PZR-0024(Q)	CTC	RF		RJ-03		101093		
SC.RA-IS.PZR-0024(Q)	LT	2YR				101093		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CA1771	**PORV CONTROL AIR SUPPLY CHECK VALVE**									*AUGMENTED*
205247-3	*No. 1 Unit - React. Cont. & Penetration Area*	*G6*	*N*	*A/C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.RA-IS.PZR-0024(Q)	CTC	RF		RJ-03		101093		
SC.RA-IS.PZR-0024(Q)	LT	2YR				101093		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CA2086	**11SW534 CONTROL AIR ACCUMULATOR CK VALVE**									*AUGMENTED*
205247-1	*Control Air*	*C8*	*N*	*C*	*CK*	*SELF*	*.5*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	CTC	Q				101213		
S1.RA-IS.SW-0001(Q)	LT	2YR				291272		DCP 1EC-3668,

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CA2091	**11SW535 CONTROL AIR ACCUMULATOR CK VALVE**									*AUGMENTED*
205247-1	*Control Air*	*C9*	*N*	C	*CK*	*SELF*	*.5*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	CTC	Q				101213		
S1.RA-IS.SW-0001(Q)	LT	2YR				291273		DCP 1EC-3668,

1CA2093	**12SW534 CONTROL AIR ACCUMULATOR CK VALVE**									*AUGMENTED*
205247-1	*Control Air*	*E9*	*N*	C	*CK*	*SELF*	*.5*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	CTC	Q				101213		
S1.RA-IS.SW-0001(Q)	LT	2YR				291274		DCP 1EC-3668,

1CA2095	**12SW535 CONTROL AIR ACCUMULATOR CK VALVE**									*AUGMENTED*
205247-1	*Control Air*	*C6*	*N*	C	*CK*	*SELF*	*.5*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	CTC	Q				101213		
S1.RA-IS.SW-0001(Q)	LT	2YR				291275		DCP 1EC-3668,

11CC1	**11 CMPNT CLG PMP DISCH CKVL**									
205231-1	*Component Cooling*	*E5*	*3*	C	*CK*	*SELF*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CC-0001(Q)	CTC	Q				100697		
S1.OP-ST.CC-0001(Q)	CTO	Q				100697		

12CC1	**12 CMPNT CLG PMP DISCH CHECK VALVE**									
205231-1	*Component Cooling*	*C5*	*3*	C	*CK*	*SELF*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CC-0002(Q)	CTC	Q				100698		
S1.OP-ST.CC-0002(Q)	CTO	Q				100698		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13CC1	**13 CMPNT CLG PMP DISCH CHECK VLV**									
205231-1	*Component Cooling*	*D5*	*3*	C	*CK*	*SELF*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CC-0003(Q)	CTC	Q				100699		
S1.OP-ST.CC-0003(Q)	CTO	Q				100699		
11CC3	**11 CMPNT CLG PMP DISCH HDR CRSVR TO HT EXCH GATE MOV**							
205231-1	*Component Cooling*	*D5*	*3*	B	*GT*	*MO*	*16*	*O* *O/C* *Active*
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CC-0004(Q)	STC	Q				100718		
12CC3	**12 CMPNT CLG PMP DISCH HDR CRSVR TO HT EXCH GATE MOV**							
205231-1	*Component Cooling*	*D5*	*3*	B	*GT*	*MO*	*16*	*O* *O/C* *Active*
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CC-0004(Q)	STC	Q				100718		
11CC16	**11 CMPNT CLG RHR HT EXCHG OUTLET GATE MOV**							
205231-1	*Component Cooling*	*F9*	*3*	B	*GT*	*MO*	*12*	*C* *O* *Active*
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CC-0004(Q)	STO	Q				100718		
12CC16	**12 CMPNT CLG RHR HT EXCHG OUTLET MOV**							
205231-1	*Component Cooling*	*A8*	*3*	B	*GT*	*MO*	*12*	*C* *O* *Active*
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CC-0004(Q)	STO	Q				100718		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CC17	**1 CMPNT CLG PMP SUCT HDR GATE MOV**									
205231-1	*Component Cooling*	*D3*	*3*	B	*GT*	*MO*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CC-0004(Q)	STC	Q				100718		

1CC18	**1 CMPNT CLG PMP SUCT HDR GATE MOV**									
205231-1	*Component Cooling*	*C3*	*3*	B	*GT*	*MO*	*12*	*O*	*O/C*	*Active*

S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CC-0004(Q)	STC	Q				100718		

1CC30	**1 CMPNT CLG NO 12 HT EXCHG TO 11 RHR HT EXCH GATE MOV**									
205231-1	*Component Cooling*	*D7*	*3*	B	*GT*	*MO*	*16*	*O*	*C*	*Active*

S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CC-0004(Q)	STC	Q				100718		

1CC31	**1 CMPNT CLG SPENT FUEL PIT HT EXCH INLET GATE MOV**									
205231-1	*Component Cooling*	*C6*	*3*	B	*GT*	*MO*	*16*	*O*	*C*	*Active*

S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CC-0004(Q)	STC	Q				100718		

1CC71	**1 CMPNT CLG LETDOWN HEAT EXCHANGER OUTLET BTFL VLV**									
205231-2	*Component Cooling*	*H5*	*3*	B	*BF*	*AO*	*6*	*O*	*C*	*Active*

S1.OP-ST.CVC-0007(Q)	FSTC	CS	CS-10			100582		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CVC-0007(Q)	STC	CS	CS-10			100582		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CC109	**1 COMPONENT COOLING EXCESS LETDOWN HEAT EXCHANGER INLET CHECK VALVE**									
205231-3	*Component Cooling*	*D1*	*2*	*C*	*CK*	*SELF*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CC-0004(Q)	CTO	Q				100718	TP-5	Disassembly & Inspection Method

1CC112	**1 COMP COOLING EXCESS LETDOWN HT EXCHNGR OUTLET SAFETY RELIEF VLV**									
205231-3	*Component Cooling*	*E2*	*3*	*C*	*RV*	*SELF*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				204867		

1CC113	**1 CMPNT CLG EXCESS LETDOWN HT EXCHG OUTLET AIR OPRD GATE VLV**									
205231-3	*Component Cooling*	*D2*	*2*	*A*	*GB*	*AIR*	*3*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CC-0004(Q)	FSTC	Q				100718		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290506		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CC-0004(Q)	STC	Q				100718		

1CC118	**1 CMPNT CLG REACTOR COOLANT PMP SPLY HDR GATE MOV**									
205231-3	*Component Cooling*	*C5*	*2*	*A*	*GT*	*MO*	*6*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290508		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CC-0005(Q)	STC	CS	CS-11			100487		

1CC119	**1 CMPNT CLG REACTOR COOLANT PMP SPLY HDR CKVL**									
205231-3	*Component Cooling*	*F5*	*2*	*A/C*	*CK*	*SELF*	*6*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-04		290509		
S1.OP-ST.CC-0004(Q)	CTO	Q				100718		
S1.RA-IS.ZZ-0001(Q)	LJ	18M0				290509		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11CC128	**11 CMPNT CLG REACTOR COOLANT PMP THERM BARR SUPPLY CHECK VLV**									
205231-3	*Component Cooling*	*F5*	*3*	C	*CK*	*SELF*	*2*	*O*	*C*	*Active*
12CC128	**12 CMPNT CLG REACTOR COOLANT PMP THERM BARR SPLY CHECK VLV**									
205231-3	*Component Cooling*	*F9*	*3*	C	*CK*	*SELF*	*2*	*O*	*C*	*Active*
13CC128	**13 CMPNT CLG REACTOR COOLANT PMP THERM BARR SPLY CHECK VLV**									
205231-3	*Component Cooling*	*C6*	*3*	C	*CK*	*SELF*	*2*	*O*	*C*	*Active*
14CC128	**14 CMPNT CLG REACTOR COOLANT PMP THERM BARR SPLY CHECK VLV**									
205231-3	*Component Cooling*	*C9*	*3*	C	*CK*	*SELF*	*2*	*O*	*C*	*Active*
11CC129	**11 CMPNT CLG REACTOR COOLANT PMP THERM BARR OUT SAF RLF VLV**									
205231-3	*Component Cooling*	*G7*	*3*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*
12CC129	**12 CMPNT CLG REACTOR COOLANT PMP THERM BARR OUT SAF RLF VLV**									
205231-3	*Component Cooling*	*G10*	*3*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*
13CC129	**13 CMPNT CLG REACTOR COOLANT PMP THERM BARR OUT SAF RLF VLV**									
205231-3	*Component Cooling*	*D7*	*3*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CC-0005(Q)	CTC	RF		RJ-05		100487		
S1.OP-ST.CC-0005(Q)	CTC	RF		RJ-05		100487		
S1.OP-ST.CC-0005(Q)	CTC	RF		RJ-05		100487		
S1.OP-ST.CC-0005(Q)	CTC	RF		RJ-05		100487		
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290083		
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290085		
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290087		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14CC129	**14 CMPNT CLG REACTOR COOLANT PMP THERM BARR OUT SAF RLF VLV**									
205231-3	*Component Cooling*	*D10*	*3*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290089		

1CC131	**1 CMPNT CLG REACTOR COOLANT PMP THERM BARR RTN HDR GLB MOV**									
205231-3	*Component Cooling*	*C4*	*2*	A	*GT*	*MO*	*3*	*O*	*C*	*Active*

S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290510		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CC-0005(Q)	STC	CS	CS-12			100487		

1CC135	**1 CMPNT CLG REACTOR COOLANT PMP UPR & LWR BRG RTN HDR SAF RLF VLV**									
205231-3	*Component Cooling*	*E3*	*3*	C	*RV*	*SELF*	*3*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290091		

1CC136	**1 CMPNT CLG REACTOR COOLANT PMP BRG RTN HDR GATE MOV**									
205231-3	*Component Cooling*	*C4*	*2*	A	*GT*	*MO*	*6*	*O*	*C*	*Active*

S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290513		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CC-0005(Q)	STC	CS	CS-12			100487		

1CC147	**1 CMPNT CLG SURGE TANK SAF RLF VLV**									
205231-1	*Component Cooling*	*F1*	*3*	C	*RV*	*SELF*	*3*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290095		

1CC148	**1 CMPNT CLG SURGE TANK VACUUM BREAKER**									
205231-1	*Component Cooling*	*F2*	*3*	C	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

PTC-25.3 (Crane Proc.)	RV	10YR				202231		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CC149	**1 CMPNT CLG SURGE TANK TO VENT HDR AIR OPR GLB VLV**									
205231-1	*Component Cooling*	*F2*	*3*	*B*	*GB*	*AIR*	*2*	*O*	*C*	*Active*
1CC186	**1 CMPNT CLG REACT COOL PMP BRG RTN HDR MOV 1CC187 BYP CKVL**									
205231-3	*Component Cooling*	*E3*	*2*	*A/C*	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*
1CC187	**1 CMPNT CLG REACTOR COOLANT PMP BRG RETURN HEADER GATE MOV**									
205231-3	*Component Cooling*	*E4*	*2*	*A*	*GT*	*MO*	*6*	*O*	*C*	*Active*
1CC190	**1 CMPNT CLG REACTOR COOLANT PMP THERM BARR OUT HDR GLB MOV**									
205231-3	*Component Cooling*	*D4*	*2*	*A*	*GT*	*MO*	*3*	*O*	*C*	*Active*
1CC195	**COMPONENT COOLING DEMINERALIZED WATER SUPPLY CHECK VALVE**									
205231-1	*Component Cooling*	*D1*	*3*	*C*	*CK*	*SELF*	*3*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CC-0004(Q)	FSTC	Q				100718		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CC-0004(Q)	STC	Q				100718		
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-06		290514		
S1.OP-ST.CC-0005(Q)	CTO	RF		RJ-06		100487		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290514		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290515		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CC-0005(Q)	STC	CS	CS-12			100487		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290511		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CC-0005(Q)	STC	CS	CS-12			100487		
SC.RA-IS.ZZ-0007(Q)	CTC	Q				290859		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CC208	**1 CMPNT CLG REACT COOL PMP THERM BARR OUT HDR MOV 1CC190 BYP CKVL**									
205231-3	*Component Cooling*	*D4*	*2*	*A/C*	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*
1CC210	**COMPONENT COOLING PRIMARY WATER SUPPLY CHECK VALVE**									
205231-1	*Component Cooling*	*D1*	*3*	*C*	*CK*	*SELF*	*3*	*O/C*	*C*	*Active*
1CC215	**1 CMPNT CLG EXCESS LETDOWN HT EXCHG INLET AIR OPRD GATE VLV**									
205231-3	*Component Cooling*	*D1*	*2*	*A*	*PL*	*AIR*	*3*	*O*	*C*	*Active*
1CC317	**1 CMPNT CLG CHGR SAF INJ PMP 11 HT EXCH SPLY CHECK**									
205231-1	*Component Cooling*	*D7*	*3*	*C*	*CK*	*SELF*	*1*	*O*	*O*	*Active*
1CC320	**1 CMPNT CLG CHGR SAF INJ PMP HT EXCH SPLY CKVL**									
205231-1	*Component Cooling*	*G6*	*3*	*C*	*CK*	*SELF*	*1*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-06		290512		
S1.OP-ST.CC-0005(Q)	CTO	RF		RJ-06		100487		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290512		
SC.RA-IS.ZZ-0007(Q)	CTC	Q				290859		
S1.OP-ST.CC-0004(Q)	FSTC	Q				100718		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290507		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CC-0004(Q)	STC	Q				100718		
S1.OP-ST.CC-0004(Q)	CTO	Q				100718		
S1.OP-ST.CC-0004(Q)	CTO	Q				100718		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11CH13	**11 CHL WTR PMP DISCH CKVL**									
205216-1	*Chilled Water*	*G3*	*3*	C	*CK*	*SELF*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CH-0001(Q)	CTC	Q				100700		
S1.OP-ST.CH-0001(Q)	CTO	Q				100700		

12CH13	**12 CHL WTR PMP DISCH CKVL**									
205216-1	*Chilled Water*	*G4*	*3*	C	*CK*	*SELF*	*4*	*O*	*O/C*	*Active*

S1.OP-ST.CH-0002(Q)	CTC	Q				100701		
S1.OP-ST.CH-0002(Q)	CTO	Q				100701		

1CH30	**1 CHL WTR SPLY TO NORTH PEN AREA COOLERS AIR OPRD GLB VLV**									
205216-1	*Chilled Water*	*G1*	*3*	B	*GB*	*AIR*	*3*	*O*	*C*	*Active*

S1.OP-ST.CH-0003(Q)	FSTC	Q				100756		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CH-0003(Q)	STC	Q				100756		

1CH55	**1 CHL WTR FRESH WTR SPLY HDR CKVL**									
205216-1	*Chilled Water*	*C7*	*3*	C	*CK*	*SELF*	*1*	*C*	*C*	*Active*

S1.OP-ST.CH-0003(Q)	CTC	Q				100756		

1CH74	**1 CHL WTR AIR COND UNIT COIL OUTLET/RETURN LINE AIR OPRD 3WAY VLV**									
205216-1	*Chilled Water*	*D2*	*3*	B	*3WAY*	*AIR*	*3*	*O/C*	*O*	*Active*

S1.OP-ST.CH-0003(Q)	FSTO	Q				100756		
S1.OP-ST.CH-0003(Q)	STO	Q				100756		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CH117	**1 CHL WTR CHILLER CLR OUT HDR TO COUNT RM COOLER AIR OPRD GATE VLV**									
205216-2	*Chilled Water*	*D11*	*3*	B	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CH-0003(Q)	FSTC	Q				100448		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CH-0003(Q)	STC	Q				100448		

1CH132	**1 CHL WTR LAB CLR TO PMP SUCT HDR CKVL**									
205216-2	*Chilled Water*	*E10*	*3*	C	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CH-0003(Q)	CTC	Q				100448		

1CH143	**1 CHL WTR EXPAN TK VENT SAFETY RELIEF VALVE**									
205216-1	*Chilled Water*	*F6*	*3*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290097		

1CH150	**1 CHL WTR CHILLER CLR OUT HDR TO COUNTING RM CLR AIR OPRD GATE VLV**									
205216-2	*Chilled Water*	*E11*	*3*	B	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CH-0003(Q)	FSTC	Q				100448		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CH-0003(Q)	STC	Q				100448		

1CH151	**1 CHL WTR SPLY TO NORTH PEN AREA COOLERS AIR OPRD GLB VLV**									
205216-1	*Chilled Water*	*G1*	*3*	B	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CH-0003(Q)	FSTC	Q				100756		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CH-0003(Q)	STC	Q				100756		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CH168	**1 CHL WTR EMERG AIR COND COIL OUTLET AIR OPRD GLB VLV**									
205216-1	*Chilled Water*	*D5*	*3*	B	*GB*	*AIR*	*1.5*	*O*	*O*	*Passive*
								No inservice testing required for this component		
1CH216	**1 CHL WTR EMERG CONT AIR COMP SPLY LINE AIR OPRD GLB VLV**									
205216-3	*Chilled Water*	*E7*	*3*	B	*GB*	*AIR*	*2*	*C*	*O*	*Active*
1CH220	**1 CHL WTR EMERG CONT AIR COMP INTER CLR INLET VENT SAF RLF VLV**									
205216-3	*Chilled Water*	*E8*	*3*	C	*RV*	*SELF*	*0.75*	*C*	*O*	*Active*
1CH232	**1 CHL WTR CHILLER CLR TO EMERG CONT AIR COMP CKVL**									
205216-3	*Chilled Water*	*D7*	*3*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*
1CH252	**1 CHL WTR RAD MONITOR ENCLOSURE SPLY LINE AIR OPRD GATE VLV**									
205216-1	*Chilled Water*	*H2*	*3*	B	*GB*	*AIR*	*1*	*O*	*C*	*Active*
1CH253	**1 CHL WTR RAD MONITOR ENCLOSURE SPLY LINE AIR OPRD GATE VLV**									
205216-1	*Chilled Water*	*H2*	*3*	B	*GB*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CH-0003(Q)	FSTO	Q				100756		
S1.OP-ST.CH-0003(Q)	STO	Q				100756		
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290099		
S1.OP-ST.CH-0003(Q)	CTO	Q				100756		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CH-0003(Q)	STC	Q				100756		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CH-0003(Q)	STC	Q				100756		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CH260	**1 CHL WTR RAD MON ENCL TO PMP SUCT HDR CKVL**									
205216-1	*Chilled Water*	*E2*	*3*	C	*CK*	*SELF*	*1*	*O*	*C*	*Active*
11CS2	**11 CONT SPRAY PMP DISCH MOT OP GATE VLV**									
205235-1	*Containment Spray*	*H6*	*2*	A	*GT*	*MO*	*8*	*C*	*O/C*	*Active*
12CS2	**12 CONT SPRAY PMP DISCH MOV**									
205235-1	*Containment Spray*	*E6*	*2*	A	*GT*	*MO*	*8*	*C*	*O/C*	*Active*
11CS4	**11 CONT SPRAY PMP DISCH SWG CK VLV**									
205235-1	*Containment Spray*	*H8*	*2*	C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*
12CS4	**12 CONT SPRAY PMP DISCH SWG CK VLV**									
205235-1	*Containment Spray*	*E8*	*2*	C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CH-0003(Q)	CTC	Q				100756		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290516		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CS-0003(Q)	STC	Q				100719		
S1.OP-ST.CS-0003(Q)	STO	Q				100719		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290518		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CS-0003(Q)	STC	Q				100719		
S1.OP-ST.CS-0003(Q)	STO	Q				100719		
S1.OP-ST.CS-0005(Q)	CTO	RF		RJ-07		100754		
S1.OP-ST.CS-0005(Q)	CTO	RF		RJ-07		100754		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11CS5	**11 CONT SPRAY PENETRATION AREA SAF RLF VLV**									
205235-1	*Containment Spray*	*G9*	*2*	*N/A*	*RV*	*SELF*	*0.75*	*C*	*C*	*Passive*
								No inservice testing required for this component		
12CS5	**12 CONT SPRAY PENETRATION AREA SAF RLF VLV**									
205235-1	*Containment Spray*	*E8*	*2*	*N/A*	*RV*	*SELF*	*0.75*	*C*	*C*	*Passive*
								No inservice testing required for this component.		
1CS12	**1 CONT SPRAY ADD TANK VAC BREAKER**									
205235-1	*Containment Spray*	*C5*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PM.CS-0002(Q)	RV	10YR				204785		

1CS13	**1 CONT SPRAY ADD TANK VAC BREAKER**									
205235-1	*Containment Spray*	*C5*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PM.CS-0002(Q)	RV	10YR				204786		

1CS14	**1 CONT SPRAY ADD TANK OUTLET MOT OP GATE VLV**									
205235-1	*Containment Spray*	*B7*	*3*	*B*	*GT*	*MO*	*3*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CS-0003(Q)	STO	Q				100719		

1CS16	**1 CONT SPRAY ADD TANK OUTLET MOT OP GATE VLV**									
205235-1	*Containment Spray*	*D7*	*3*	*B*	*GT*	*MO*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CS-0003(Q)	STO	Q				100719		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CS17	**1 CONT SPRAY ADD TANK OUTLET MOT OP GATE VLV**									
205235-1	*Containment Spray*	*D7*	*3*	B	*GT*	*MO*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CS-0003(Q)	STO	Q				100719		

11CS21	**11 CONT SPRAY EDUCTOR SUP SWG CK VLV**									
205235-1	*Containment Spray*	*G7*	*3*	C	*CK*	*SELF*	*3*	*C*	*O/C*	*Active*

S1.OP-ST.CS-0001(Q)	CTC	Q				100707		
S1.OP-ST.CS-0001(Q)	CTO	Q				100707		

12CS21	**12 CONT SPRAY EDUCTOR SUPPLY CHECK VLV**									
205235-1	*Containment Spray*	*F6*	*3*	C	*CK*	*SELF*	*3*	*C*	*O/C*	*Active*

S1.OP-ST.CS-0002(Q)	CTC	Q				100708		
S1.OP-ST.CS-0002(Q)	CTO	Q				100708		

1CS26	**1 CONT SPRAY ADD TANK SAF RLF VLV**									
205235-1	*Containment Spray*	*C4*	*3*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290105		

11CS36	**11 CONT SPRAY RESIDUAL HT EXCHG TO SPRAY HDR MOT OP GATE STOP VLV**									
205235-1	*Containment Spray*	*H9*	*2*	B	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CS-0004(Q)	STC	CS	CS-13			100489		
S1.OP-ST.CS-0004(Q)	STO	CS	CS-13			100489		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12CS36	**12 CONT SPRAY RESIDUAL HT EXCHG TO SPRAY HDR MOT OP GATE STOP VLV**									
205235-1	*Containment Spray*	*E9*	*2*	*B*	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CS-0004(Q)	STC	CS	CS-13			100489		
S1.OP-ST.CS-0004(Q)	STO	CS	CS-13			100489		

11CS48	**11 CONT SPRAY PMP DISCH SWG CK VLV**									
205235-1	*Containment Spray*	*H10*	*2*	*A/C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-08		290517		
S1.OP-ST.CS-0005(Q)	CTO	RF		RJ-08		100754		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290517		

12CS48	**12 CONT SPRAY PMP DISCH SWG CK VLV**									
205235-1	*Containment Spray*	*E10*	*2*	*A/C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-08		290519		
S1.OP-ST.CS-0005(Q)	CTO	RF		RJ-08		100754		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290519		

1CS900	**1 CONT SPRAY SAMPLE TEST CONN GLB VLV**									
205235-1	*Containment Spray*	*G9*	*2*	*A*	*GB*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290520		

1CS901	**1 CONT SPRAY SAMPLE TEST CONN GLB VLV**									
205235-1	*Containment Spray*	*F9*	*2*	*A*	*GB*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290521		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CS902	**1 CONT SPRAY TEST CONNECTION GLB VLV**									
205235-1	*Containment Spray*	*G8*	*2*	*A*	*GB*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290522		

1CV3	**1 CVC LET DOWN ORIFICE ISOLATION AIR OPRD GLB VLV**									
205228-2	*Chemical and Volume Control Operation*	*F8*	*2*	*A*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

S1.OP-ST.CVC-0006(Q)	FSTC	Q				100720			
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290524			
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299			
S1.OP-ST.CVC-0006(Q)	STC	Q				100720			

1CV4	**1 CVC REGENERATIVE HT EXCH TO LET DOWN HT EXCH AIR OPRD GLB VLV**									
205228-2	*Chemical and Volume Control Operation*	*F9*	*2*	*A*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

S1.OP-ST.CVC-0006(Q)	FSTC	Q				100720			
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290525			
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299			
S1.OP-ST.CVC-0006(Q)	STC	Q				100720			

1CV5	**1 CVC LET DOWN ORIFICE ISOLATION AIR OPRD GLB VLV**									
205228-2	*Chemical and Volume Control Operation*	*F9*	*2*	*A*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

S1.OP-ST.CVC-0006(Q)	FSTC	Q				100720			
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290526			
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299			
S1.OP-ST.CVC-0006(Q)	STC	Q				100720			

1CV6	**1 CVC REGENERATIVE HT EXCH TO LET DOWN HT EXCH SAF RLF VLV**									
205228-2	*Chemical and Volume Control Operation*	*G9*	*2*	*C*	*RV*	*SELF*	*2*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290107			

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CV7	**1 CVC LET DOWN HT EXCH INLET AIR OPRD GLB VLV**									
205228-2	*Chemical and Volume Control Operation*	*G8*	*2*	A	*PL*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0007(Q)	FSTC	CS	CS-14			100582		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290527		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CVC-0007(Q)	STC	CS	CS-14			100582		

1CV40	**1 CVC VOL CONT TK OUTLET GATE MOV**									
205228-1	*Chemical and Volume Control Operation*	*E9*	*2*	B	*GT*	*MO*	*4*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CVC-0007(Q)	STC	CS	CS-15			100582		

1CV41	**1 CVC VOL CONT TK OUTLET GATE MOV**									
205228-1	*Chemical and Volume Control Operation*	*D9*	*2*	B	*GT*	*MO*	*4*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CVC-0007(Q)	STC	CS	CS-15			100582		

1CV42	**1 CVC VOL CONT TK OUTLET CKVL**									
205228-1	*Chemical and Volume Control Operation*	*D9*	*2*	C	*CK*	*SELF*	*4*	*O*	*O*	*Passive*

No inservice testing required for this component

1CV43	**1 CVC CHG SAF INJ PMP SUCT HDR SAF RLF VLV**									
205228-2	*Chemical and Volume Control Operation*	*E2*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290109		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CV47	**1 CVC CHG SAF INJ PMP NO 11 DISCH CKVL**									
205228-2	*Chemical and Volume Control Operation*	*D5*	*2*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0003(Q)	CTC	Q				100702		
S1.OP-ST.SJ-0016(Q)	CTO	RF		RJ-09		101056		
S1.OP-ST.CVC-0003(Q)	PS	Q				100702		

1CV52	**1 CVC CHARGING SAFETY INJ PMP NO 12 DISCH CKVL**									
205228-2	*Chemical and Volume Control Operation*	*C5*	*2*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

S1.OP-ST.CVC-0004(Q)	CTC	Q				100703		
S1.OP-ST.SJ-0016(Q)	CTO	RF		RJ-09		101056		
S1.OP-ST.CVC-0004(Q)	PS	Q				100703		

1CV63	**1 CVC RECIPROCATING CHARGING PMP DISCH CKVL**									
205228-2	*Chemical and Volume Control Operation*	*A5*	*2*	*C*	*CK*	*SELF*	*3*	*O*	*O*	*Active*

S1.OP-ST.CVC-0005(Q)	CTO	Q				100704		

1CV68	**1 CVC REGENERATIVE HT EXCH INLET GATE MOV**									
205228-2	*Chemical and Volume Control Operation*	*D8*	*2*	*A*	*GT*	*MO*	*3*	*O*	*O/C*	*Active*

S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290610		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CVC-0007(Q)	STC	CS	CS-16			100582		

1CV69	**1 CVC REGENERATIVE HT EXCH INLET GATE MOV**									
205228-2	*Chemical and Volume Control Operation*	*D8*	*2*	*A*	*GT*	*MO*	*3*	*O*	*O/C*	*Active*

S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290611		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CVC-0007(Q)	STC	CS	CS-16			100582		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CV71	**1 CVC CHG SAFETY INJ TO REGEN HT EXCH INLET AIR OPRD GLB VLV**									
205228-2	*Chemical and Volume Control Operation*	*C7*	*2*	B	*GB*	*AIR*	*3*	*O*	*O*	*Passive*
								No inservice testing required for this component		
1CV74	**1 CVC REGENERATIVE HT EXCH INLET CKVL**									
205228-2	*Chemical and Volume Control Operation*	*E10*	*2*	A/C	*CK*	*SELF*	*3*	*O*	*O/C*	*Active*
1CV75	**1 CVC REGEN HT EXCH TO REAC PRESSURIZER AIR OPRD GLB VLV**									
205228-2	*Chemical and Volume Control Operation*	*E10*	*1*	B	*GB*	*AIR*	*2*	*C*	*O/C*	*Active*
1CV76	**1 CVC REGEN HT EXCH TO REAC PRESSURIZER CKVL**									
205228-2	*Chemical and Volume Control Operation*	*D10*	*1*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*
1CV77	**1 CVC REGEN HT EXCH TO REAC COOL CHG LINE AIR OPRD GLB VLV**									
205228-2	*Chemical and Volume Control Operation*	*E10*	*1*	B	*GB*	*AIR*	*3*	*C/O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-10		290612		
S1.OP-ST.CVC-0006(Q)	CTO	Q				100720		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290612		
S1.OP-ST.CVC-0007(Q)	FSTC	CS	CS-17			100582		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CVC-0007(Q)	STC	CS	CS-17			100582		
S1.OP-ST.CVC-0007(Q)	STO	CS	CS-17			100582		
S1.OP-ST.CVC-0007(Q)	CTO	CS	CS-18			100582		
S1.OP-ST.CVC-0006(Q)	FSTO	Q				100720		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CVC-0006(Q)	STO	Q				100720		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CV78	**1 CVC REGEN HT EXCH TO REAC COOL CHG LINE CKVL**									
205228-2	*Chemical and Volume Control Operation*	*E11*	*1*	C	*CK*	*SELF*	*3*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0007(Q)	CTO	CS	CS-19			100582		
S1.OP-ST.CVC-0006(Q)	PS	Q				100720		

1CV79	**1 CVC REGEN HT EXCH TO REAC COOL CHG LINE AIR OPRD GLB VLV**									
205228-2	*Chemical and Volume Control Operation*	*E10*	*1*	B	*GB*	*AIR*	*3*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0006(Q)	FSTO	Q				100720		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CVC-0006(Q)	STO	Q				100720		

1CV80	**1 CVC REGEN HT EXCH TO REAC COOL CHG LINE CKVL**									
205228-2	*Chemical and Volume Control Operation*	*E11*	*1*	C	*CK*	*SELF*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0007(Q)	CTO	CS	CS-19			100582		
S1.OP-ST.CVC-0006(Q)	PS	Q				100720		

11CV99	**11 CVC REAC COOL PMP SUCT CKVL**									
205228-3	*Chemical and Volume Control Operation*	*F3*	*2*	A/C	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-11		290531		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290531		

12CV99	**12 CVC REAC COOL PMP SUCT CKVL**									
205228-3	*Chemical and Volume Control Operation*	*F3*	*2*	A/C	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-11		290532		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290532		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13CV99	**13 CVC REAC COOL PMP SUCT CKVL**									
205228-3	*Chemical and Volume Control Operation*	*C3*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-11		290533		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290533		

14CV99	**14 CVC REAC COOL PMP SUCT CKVL**									
205228-3	*Chemical and Volume Control Operation*	*B3*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*

S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-11		290534		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290534		

1CV115	**1 CVC REAC COOL PMP DISCH HDR SAF RLF VLV**									
205228-3	*Chemical and Volume Control Operation*	*C1*	*2*	*C*	*RV*	*SELF*	*2*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				202137		

1CV116	**1 CVC SEAL WTR FILTER INLET GATE MOV**									
205228-2	*Chemical and Volume Control Operation*	*H5*	*2*	*A*	*GT*	*MO*	*4*	*O*	*C*	*Active*

S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290528		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CVC-0007(Q)	STC	CS	CS-20			100582		

1CV135	**1 CVC CHG SAF INJ PMP NO 11 TO SEAL WTR HT EXCH CKVL**									
205228-2	*Chemical and Volume Control Operation*	*E4*	*2*	*C*	*CK*	*SELF*	*2*	*C*	*O*	*Active*

S1.OP-ST.CVC-0003(Q)	CTO	Q				100702		

1CV137	**1 CVC CHG SAF INJ PMP NO 12 TO SEAL WTR HT EXCH CKVL**									
205228-2	*Chemical and Volume Control Operation*	*D4*	*2*	*C*	*CK*	*SELF*	*2*	*C*	*O*	*Active*

S1.OP-ST.CVC-0004(Q)	CTO	Q				100703		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CV139	**1 CVC CHG SAF INJ PMP TO SEAL WTR HT EXCH GLB MOV**									
205228-2	*Chemical and Volume Control Operation*	*E2*	*2*	B	*GB*	*MO*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CVC-0006(Q)	STC	Q				100720		
S1.OP-ST.CVC-0006(Q)	STO	Q				100720		

1CV140	**1 CVC CHG SAF INJ PMP TO SEAL WTR HT EXCH GLB MOV**									
205228-2	*Chemical and Volume Control Operation*	*E3*	*2*	B	*GB*	*MO*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CVC-0006(Q)	STC	Q				100720		
S1.OP-ST.CVC-0006(Q)	STO	Q				100720		

1CV141	**1 CVC RECIPROCATING CHARGING PMP DISCH SAF RLF VLV**									
205228-2	*Chemical and Volume Control Operation*	*A5*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290111		

11CV154	**11 CVC BORIC ACID TRANS PMP DISCH CKVL**									
205228-1	*Chemical and Volume Control Operation*	*F1*	*2*	C	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0001(Q)	CTC	Q				100695		
S1.OP-ST.CVC-0001(Q)	CTO	Q				100695		

12CV154	**12 CVC BORIC ACID TRANS PMP DISCH CKVL**									
205228-1	*Chemical and Volume Control Operation*	*F3*	*2*	C	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0002(Q)	CTC	Q				100696		
S1.OP-ST.CVC-0002(Q)	CTO	Q				100696		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11CV160	**11 CVC BORIC ACID TK INLET AIR OPRD GLB VLV**									
205228-1	*Chemical and Volume Control*	*G2*	*2*	B	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0006(Q)	FSTC	Q				100720		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CVC-0006(Q)	STC	Q				100720		

12CV160	**12 CVC BORIC ACID TK INLET AIR OPRD GLB VLV**									
205228-1	*Chemical and Volume Control*	*G3*	*2*	B	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0006(Q)	FSTC	Q				100720		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CVC-0006(Q)	STC	Q				100720		

1CV175	**1 CVC BORIC ACID TRANSFER LINE GLB MOV**									
205228-1	*Chemical and Volume Control Operation*	*F8*	*2*	B	*GB*	*MO*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.CVC-0006(Q)	STO	Q				100720		

1CV176	**1 CVC BORIC ACID TRANSFER LINE CKVL**									
205228-1	*Chemical and Volume Control Operation*	*F8*	*2*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0007(Q)	CTO	CS	CS-21			100582		

1CV241	**1 CVC VOLUME CONTROL TK TO HOLD-UP TK SAF RLF VLV**									
205228-1	*Chemical and Volume Control Operation*	*H10*	*2*	C	*RV*	*SELF*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				203980		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1CV274	**1 CVC REGEN HT EXCH TO REAC COLD LEG CKVL**									
205228-2	*Chemical and Volume Control Operation*	*E10*	*1*	C	*CK*	*SELF*	*3*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0007(Q)	CTO	CS	CS-19			100582		
S1.OP-ST.CVC-0006(Q)	PS	Q				100720		

1CV275	**1 CVC REGEN HT EXCH TO REAC COOL CHG LINE CKVL**									
205228-2	*Chemical and Volume Control Operation*	*E10*	*1*	C	*CK*	*SELF*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0007(Q)	CTO	CS	CS-19			100582		
S1.OP-ST.CVC-0006(Q)	PS	Q				100720		

1CV284	**1 CVC REAC COOL PMP DISCH HDR GATE VLV**									
205228-3	*Chemical and Volume Control Operation*	*C2*	*2*	A	*GT*	*MO*	*4*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290529		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CVC-0007(Q)	STC	CS	CS-20			100582		

1CV296	**1 CVC REAC COOL PMP DISCH HDR MOV 1CV284 BYPASS CKVL**									
205228-3	*Chemical and Volume Control Operation*	*C1*	*2*	A/C	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-12		290530		
S1.OP-ST.CVC-0007(Q)	CTO	RF		RJ-12		100582		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290530		

11DA6A	**11 DIESEL GEN DIESEL STARTING AIR RECEIVER NO.11A INLET CHECK VLV**									*AUGMENTED*
205241-1	*Diesel Engine Auxiliaries*	*D4*	*N*	A/C	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0009(Q)	CTC	Q				100753		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12DA6A	**12 DIESEL GEN DIESEL STARTING AIR RECEIVER NO.11B INLET CHECK VLV**									*AUGMENTED*
205241-1	*Diesel Engine Auxiliaries*	*D5*	*N*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0009(Q)	CTC	Q				100753		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11DA6B	**11 DIESEL GEN DIESEL STARTING AIR RECEIVER NO.12A INLET CHECK VLV**									*AUGMENTED*
205241-2	*Diesel Engine Auxiliaries*	*D4*	*N*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0010(Q)	CTC	Q				101136		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12DA6B	**12 DIESEL GEN DIESEL STARTING AIR RECEIVER NO.12B INLET CHECK VLV**									*AUGMENTED*
205241-2	*Diesel Engine Auxiliaries*	*D5*	*N*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0010(Q)	CTC	Q				101136		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11DA6C	**11 DIESEL GEN DIESEL STARTING AIR RECEIVER NO.13A INLET CHECK VLV**									*AUGMENTED*
205241-3	*Diesel Engine Auxiliaries*	*D4*	*N*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0011(Q)	CTC	Q				101137		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12DA6C	**12 DIESEL GEN DIESEL STARTING AIR RECEIVER NO.13B INLET CHECK VLV**									*AUGMENTED*
205241-3	*Diesel Engine Auxiliaries*	*D5*	*N*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0011(Q)	CTC	Q				101137		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11DA10A	**11 DIESEL GEN DIESEL STARTING AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-1	*Diesel Engine Auxiliaries*	*E4*	*N*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290113		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12DA10A	**12 DIESEL GEN DIESEL STARTING AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-1	*Diesel Engine Auxiliaries*	*E5*	*N*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290119		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11DA10B	**11 DIESEL GEN DIESEL STARTING AIR RECEIVER NO.12A SAF RLF VLV**									*AUGMENTED*
205241-2	*Diesel Engine Auxiliaries*	*E4*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290115		

12DA10B	**12 DIESEL GEN DIESEL STARTING AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-2	*Diesel Engine Auxiliaries*	*E5*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290121		

11DA10C	**11 DIESEL GEN DIESEL STARTING AIR RECEIVER NO.13A SAF RLF VLV**									*AUGMENTED*
205241-3	*Diesel Engine Auxiliaries*	*E4*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290117		

12DA10C	**12 DIESEL GEN DIESEL STARTING AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-3	*Diesel Engine Auxiliaries*	*E5*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290123		

11DA13A	**11 DIESEL GEN STARTING AIR MOTOR 1A SV (SV878)**									*AUGMENTED*
205241-1	*Diesel Engine Auxiliaries*	*F4*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0006(Q)	FSO	CS	CS-22			100350		
S1.OP-ST.DG-0001(Q)	STO	Q			RR-03	101290		

12DA13A	**1A DIESEL GEN STARTING AIR MOTOR SV (SV877)**									*AUGMENTED*
205241-1	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0006(Q)	FSO	CS	CS-22			100350		
S1.OP-ST.DG-0001(Q)	STO	Q			RR-03	101291		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11DA13B	**12 DIESEL GEN STARTING AIR MOTOR 1B SV (SV884)**									*AUGMENTED*
205241-2	*Diesel Engine Auxiliaries*	*F4*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0007(Q)	FSO	CS	CS-22			100359		
S1.OP-ST.DG-0002(Q)	STO	Q			RR-03	101292		

12DA13B	**1B DIESEL GEN STARTING AIR MOTOR SV (SV883)**									*AUGMENTED*
205241-2	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S1.OP-ST.DG-0007(Q)	FSO	CS	CS-22			100359		
S1.OP-ST.DG-0002(Q)	STO	Q			RR-03	101293		

11DA13C	**13 DIESEL GEN STARTING AIR MOTOR 1C SV (SV890)**									*AUGMENTED*
205241-3	*Diesel Engine Auxiliaries*	*F4*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S1.OP-ST.DG-0008(Q)	FSO	CS	CS-22			100360		
S1.OP-ST.DG-0003(Q)	STO	Q			RR-03	101294		

12DA13C	**1C DIESEL GEN STARTING AIR MOTOR SV (SV889)**									*AUGMENTED*
205241-3	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S1.OP-ST.DG-0008(Q)	FSO	CS	CS-22			100360		
S1.OP-ST.DG-0003(Q)	STO	Q			RR-03	101295		

11DA14A	**11 DIESEL GEN STARTING AIR MOTOR 1A SV (SV879)**									*AUGMENTED*
205241-1	*Diesel Engine Auxiliaries*	*F4*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S1.OP-ST.DG-0006(Q)	FSO	CS	CS-22			100350		
S1.OP-ST.DG-0001(Q)	STO	Q			RR-03	101290		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12DA14A	**1A DIESEL GEN STARTING AIR MOTOR SV (SV880)**									*AUGMENTED*
205241-1	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0006(Q)	FSO	CS	CS-22			100350		
S1.OP-ST.DG-0001(Q)	STO	Q			RR-03	101291		

11DA14B	**12 DIESEL GEN STARTING AIR MOTOR 1B SV (SV885)**									*AUGMENTED*
205241-2	*Diesel Engine Auxiliaries*	*F4*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0007(Q)	FSO	CS	CS-22			100359		
S1.OP-ST.DG-0002(Q)	STO	Q			RR-03	101292		

12DA14B	**1B DIESEL GEN STARTING AIR MOTOR SV (SV886)**									*AUGMENTED*
205241-2	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0007(Q)	FSO	CS	CS-22			100359		
S1.OP-ST.DG-0002(Q)	STO	Q			RR-03	101293		

11DA14C	**13 DIESEL GEN STARTING AIR MOTOR 1C SV (SV891)**									*AUGMENTED*
205241-3	*Diesel Engine Auxiliaries*	*F4*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0008(Q)	FSO	CS	CS-22			100360		
S1.OP-ST.DG-0003(Q)	STO	Q			RR-03	101294		

12DA14C	**1C DIESEL GEN STARTING AIR MOTOR SV (SV892)**									*AUGMENTED*
205241-3	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0008(Q)	FSO	CS	CS-22			100360		
S1.OP-ST.DG-0003(Q)	STO	Q			RR-03	101295		

1DA17A	**1 DIESEL GEN DIESEL TURBO BOOST AIR COMPRESSOR DISCH CHECK VLV**									*AUGMENTED*
205241-2	*Diesel Engine Auxiliaries*	*G1*	*N*	A/C	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0009(Q)	CTC	Q				100753		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1DA17B	1 DIESEL GEN DIESEL TURBO BOOST AIR COMPRESSOR DISCH CHECK VLV									AUGMENTED
205241-2	Diesel Engine Auxiliaries	G1	N	A/C	CK	SELF	0.75	O/C	C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0010(Q)	CTC	Q				101136		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1DA17C	1 DIESEL GEN DIESEL TURBO BOOST AIR COMPRESSOR DISCH CHECK VLV									AUGMENTED
205241-3	Diesel Engine Auxiliaries	G1	N	A/C	CK	SELF	0.75	O/C	C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0011(Q)	CTC	Q				101137		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11DA19A	11 DIESEL GEN DIESEL TURBO BOOST AIR RECIEVER NO.11A SAF RLF VLV									AUGMENTED
205241-1	Diesel Engine Auxiliaries	G2	N	C	RV	SELF	0.75	C	O/C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007 (Q)	RV	10YR				290125		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12DA19A	12 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER NO.11B SAF RLF VLV									AUGMENTED
205241-1	Diesel Engine Auxiliaries	G3	N	C	RV	SELF	0.75	C	O/C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007 (Q)	RV	10YR				290131		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11DA19B	11 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER NO.12A SAF RLF VLV									AUGMENTED
205241-2	Diesel Engine Auxiliaries	G2	N	C	RV	SELF	0.75	C	O/C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007 (Q)	RV	10YR				290127		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12DA19B	12 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER NO.12B SAF RLF VLV									AUGMENTED
205241-2	Diesel Engine Auxiliaries	G3	N	C	RV	SELF	0.75	C	O/C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007 (Q)	RV	10YR				290133		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11DA19C	11 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER NO.13A SAF RLF VLV									AUGMENTED
205241-3	Diesel Engine Auxiliaries	G2	N	C	RV	SELF	0.75	C	O/C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007 (Q)	RV	10YR				290129		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12DA19C	**12 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER NO.13B SAF RLF VLV**									*AUGMENTED*
205241-3	*Diesel Engine Auxiliaries*	*G3*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*
SC.MD-PT.ZZ-0007 (Q)	RV / 10YR / 290135									
1DA36A	**1 DIESEL GEN DIESEL ENGINE LUBE OIL HEATER OUTLET CHECK VLV**									
205241-1	*Diesel Engine Auxiliaries*	*C9*	*N*	C	*CK*	*SELF*	*4*	*O*	*O*	*Passive*
	No inservice testing required for this component									
1DA36B	**1 DIESEL GEN DIESEL ENGINE LUBE OIL HEATER OUTLET CHECK VLV**									
205241-2	*Diesel Engine Auxiliaries*	*C9*	*N*	C	*CK*	*SELF*	*4*	*O*	*O*	*Passive*
	No inservice testing required for this component									
1DA36C	**1 DIESEL GEN DIESEL ENGINE LUBE OIL HEATER OUTLET CHECK VLV**									
205241-3	*Diesel Engine Auxiliaries*	*C9*	*N*	C	*CK*	*SELF*	*4*	*O*	*O*	*Passive*
	No inservice testing required for this component									
1DF28	**1 FUEL OIL DIESEL FUEL OIL STORAGE TANKS RETURN STOP VLV**									*AUGMENTED*
205249-2	*Fuel Oil*	*C7*	*N*	B	*GT*	*MAN*	*4.0*	*C*	*O*	*Active*
S1.OP-ST.ZZ-0006(Q)	FSO / Q / 101466									
11DF29	**11 FUEL OIL DIESEL FUEL OIL STORAGE TANK INLET VLV**									*AUGMENTED*
205249-2	*Fuel Oil*	*B7*	*N*	B	*GT*	*MAN*	*4.0*	*C*	*O*	*Active*
S1.OP-ST.ZZ-0006(Q)	FSO / Q / 101466									
12DF29	**12 FUEL OIL DIESEL FUEL OIL STORAGE TANK INLET VLV**									*AUGMENTED*
205249-2	*Fuel Oil*	*B6*	*N*	B	*GT*	*MAN*	*4.0*	*C*	*O*	*Active*
S1.OP-ST.ZZ-0006(Q)	FSO / Q / 101466									

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1DF30	1 FUEL OIL EMERGENCY TRUCK DELIVERY CONNECTION INLET VLV									AUGMENTED
205249-2	Fuel Oil	B7	N	B	GB	MAN	2.0	C	O	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0006(Q)	FSO	Q				101466		

1DF31	1 FUEL OIL EMERGENCY TRUCK DELIVERY CONNECTION INLET CHECK VLV									AUGMENTED
205249-2	Fuel Oil	B7	N	C	CK	SELF	2.0	C	O	Active

SC.MD-PM.ZZ-0124(Q)	FSO	RF				205085		

11DF38	11 FUEL OIL DIESEL FUEL OIL TRANSFER PUMP DISCH CHECK VLV									AUGMENTED
205249-2	Fuel Oil	A6	N	C	CK	SELF	2	C	O	Active

S1.OP-ST.DG-0004(Q)	CTO	Q				100577		

12DF38	12 FUEL OIL DIESEL FUEL OIL TRANSFER PUMP DISCH CHECK VLV									AUGMENTED
205249-2	Fuel Oil	B8	N	C	CK	SELF	2	C	O	Active

S1.OP-ST.DG-0005(Q)	CTO	Q				101127		

11DF61	11 FUEL OIL DIESEL FUEL OIL DAY TANK NO.1A INLET CHECK VLV									AUGMENTED
205249-2	Fuel Oil	H7	N	C	CK	SELF	2	C	O	Active

S1.OP-ST.DG-0004(Q)	CTO	Q				100577		

12DF61	12 FUEL OIL DIESEL FUEL OIL DAY TANK NO.1A INLET CHECK VLV									AUGMENTED
205249-2	Fuel Oil	H7	N	C	CK	SELF	2	C	O	Active

S1.OP-ST.DG-0005(Q)	CTO	Q				101127		

11DF62	11 FUEL OIL DIESEL FUEL OIL DAY TANK NO.1B INLET CHECK VLV									AUGMENTED
205249-2	Fuel Oil	G7	N	C	CK	SELF	2	C	O	Active

S1.OP-ST.DG-0004(Q)	CTO	Q				100577		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12DF62	**12 FUEL OIL DIESEL FUEL OIL DAY TANK NO.1B INLET CHECK VLV**									*AUGMENTED*
205249-2	*Fuel Oil*	*F7*	*N*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*
11DF63	**11 FUEL OIL DIESEL FUEL OIL DAY TANK NO.1C INLET CHECK VLV**									*AUGMENTED*
205249-2	*Fuel Oil*	*D7*	*N*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*
12DF63	**12 FUEL OIL DIESEL FUEL OIL DAY TANK NO.1C INLET CHECK VLV**									*AUGMENTED*
205249-2	*Fuel Oil*	*E7*	*N*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*
1DR7	**1 DEMINERALIZER WATER AUX FEEDWATER TANK INLET CHECK VALVE**									
205246-1	*Demineralized Water - Restricted Areas*	*D5*	*3*	C	*DCK*	*SELF*	*6*	*O/C*	*C*	*Active*
1DR29	**1 DEMIN WTR UNIT 2 INLET LINE AIR OPRD GLB VLV**									
205246-1	*Demineralized Water - Restricted Areas*	*D8*	*2*	A	*GT*	*AIR*	*4*	*C*	*C*	*Active*
1DR30	**1 DEMIN WTR UNIT 1 INLET LINE CKVL**									
205246-1	*Demineralized Water - Restricted Areas*	*D8*	*2*	A/C	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0005(Q)	CTO	Q				101127		
S1.OP-ST.DG-0004(Q)	CTO	Q				100577		
S1.OP-ST.DG-0005(Q)	CTO	Q				101127		
S1.OP-ST.ZZ-0003(Q)	CTC	Q				100726		
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290535		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-34		290536		
S1.OP-ST.ZZ-0005(Q)	CTO	RF		RJ-34		(later)	TP-5	Disassembly & Inspection Method
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290536		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1DR177	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**									*AUGMENTED*
205246-2	*Demineralized Water - Restricted Areas*	*E3*	*N*	*C*	*RV*	*SELF*	*.5*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3718

1FP147	**1 FIRE PROT REAC CONTMT AREA INLET AIR OPRD PLUG/CTL VLV**									
205222-1	*Fire Protection*	*E7*	*2*	*A*	*GT*	*AIR*	*4*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290537		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		

1FP148	**1 FIRE PROT REAC CONTMT AREA INLET CHECK VLV**									
205222-1	*Fire Protection*	*E7*	*2*	*A/C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-34		290538		
S1.OP-ST.ZZ-0005(Q)	CTO	RF		RJ-34		(later)	TP-5	Disassembly & Inspection Method
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290538		

11GB4	**11 STM GEN DRN & BLDWN STM GEN TO NO 12 COND AIR OPRD GLB VLV**									
205225-2	*Steam Generator Drains and Blowdown*	*H10*	*2*	*A*	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
SC.RA-IS.GB-0004(Q)	LT	2YR				291148		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12GB4	**12 STM GEN DRN & BLDWN STM GEN TO COND AIR OPRD GLB VLV**									
205225-2	*Steam Generator Drains and Blowdown*	*G10*	*2*	A	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
SC.RA-IS.GB-0004(Q)	LT	2YR				291148		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

13GB4	**13 STM GEN DRN & BLDWN STM GEN TO NO 12 COND AIR OPRD GLB VLV**									
205225-2	*Steam Generator Drains and Blowdown*	*G10*	*2*	A	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
SC.RA-IS.GB-0004(Q)	LT	2YR				291148		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

14GB4	**14 STM GEN DRN & BLDWN STM GEN TO NO 12 COND AIR OPRD GLB VLV**									
205225-2	*Steam Generator Drains and Blowdown*	*F10*	*2*	A	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
SC.RA-IS.GB-0004(Q)	LT	2YR				291148		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

11MS7	**11 MN STM & TRB BY PASS HDR STM DRN AIR OPRD ISOL VLV**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*E5*	*2*	B	*GB*	*AIR*	*2*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12MS7	**12 MN STM & TRB BY PASS MS HDR DRAIN LINE AIR OPRD GLB VLV**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*C6*	*2*	B	*GB*	*AIR*	*2*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

13MS7	**13 MN STM & TRB BY PASS HDR STM DRN AIR OPRD ISOL VLV**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*A5*	*2*	B	*GB*	*AIR*	*2*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

14MS7	**14 MN STM & TRB BY PASS MS HDR DRAIN LINE AIR OPRD GLB VLV**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*F6*	*2*	B	*GB*	*AIR*	*2*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

11MS10	**11 MN STM & TRB BY PASS AIR OPRD RLF VLV (Power Operated Relief Valves)**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*G7*	*2*	B	*GB*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-23			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-23			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-23			100554		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12MS10	**12 MN STM & TRB BY PASS STM GEN AIR OPRD RLF VLV (Power Operated Relief Valves)**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*D6*	*2*	B	*GB*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-23			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-23			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-23			100554		

13MS10	**13 MN STM & TRB BY PASS AIR OPRD STM GEN RLF VLV (Power Operated Relief Valves)**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*D7*	*2*	B	*GB*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-23			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-23			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-23			100554		

14MS10	**14 MN STM & TRB BY PASS STM GEN AIR OPRD RLF VLV (Power Operated Relief Valves)**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*G6*	*2*	B	*GB*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTC	CS	CS-23			100554		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0002(Q)	STC	CS	CS-23			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-23			100554		

11MS11	**11 MN STM & TRB BY PASS STM GEN SAF RLF VLV 11MS11**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*F3*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-ST.MS-0001(Q)	RV	5YR				290153		

12MS11	**12 MN STM & TRB BY PASS STM GEN SAF RLF VLV 12MS11**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*D3*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC MD-ST.MS-0001(Q)	RV	5YR				290155		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13MS11	**13 MN STM & TRB BY PASS STM GEN SAF RLF VLV 13MS11**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*C3*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
14MS11	**14 MN STM & TRB BY PASS STM GEN SAF RLF VLV 14MS11**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*G3*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
11MS12	**11 MN STM & TRB BY PASS STM GEN SAF RLF VLV 11MS12**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*F4*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
12MS12	**12 MN STM & TRB BY PASS STM GEN SAF RLF VLV 12MS12**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*D4*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
13MS12	**13 MN STM & TRB BY PASS STM GEN SAF RLF VLV 13MS12**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*C4*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
14MS12	**14 MN STM & TRB BY PASS STM GEN SAF RLF VLV 14MS12**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*G4*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
11MS13	**11 MN STM & TRB BY PASS STM GEN SAF RLF VLV 11MS13**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*F5*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-ST.MS-0001(Q)	RV	5YR				290157		
SC.MD-ST.MS-0001(Q)	RV	5YR				290159		
SC.MD-ST.MS-0001(Q)	RV	5YR				290161		
SC.MD-ST.MS-0001(Q)	RV	5YR				290163		
SC.MD-ST.MS-0001(Q)	RV	5YR				290165		
SC.MD-ST.MS-0001(Q)	RV	5YR				290167		
SC.MD-ST.MS-0001(Q)	RV	5YR				290169		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12MS13	**12 MN STM & TRB BY PASS STM GEN SAF RLF VLV 12MS13**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*D5*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-ST.MS-0001(Q)	RV	5YR				290171		

13MS13	**13 MN STM & TRB BY PASS STM GEN SAF RLF VLV 13MS13**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*C5*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290173		

14MS13	**14 MN STM & TRB BY PASS STM GEN SAF RLF VLV 14MS13**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*G4*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290175		

11MS14	**11 MN STM & TRB BY PASS STM GEN SAF RLF VLV 11MS14**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*F6*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290177		

12MS14	**12 MN STM & TRB BY PASS STM GEN SAF RLF VLV 12MS14**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*D5*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290179		

13MS14	**13 MN STM & TRB BY PASS STM GEN SAF RLF VLV 13MS14**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*C6*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290181		

14MS14	**14 MN STM & TRB BY PASS STM GEN SAF RLF VLV 14MS14**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*G5*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290183		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11MS15	**11 MN STM & TRB BY PASS STM GEN SAF RLF VLV 11MS15**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*F6*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-ST.MS-0001(Q)	RV	5YR				290185		
12MS15	**12 MN STM & TRB BY PASS STM GEN SAF RLF VLV 12MS15**							
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*D6*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290187		
13MS15	**13 MN STM & TRB BY PASS STM GEN SAF RLF VLV 13MS15**							
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*C6*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290189		
14MS15	**14 MN STM & TRB BY PASS STM GEN SAF RLF VLV 14MS15**							
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*G6*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290191		
11MS18	**11 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD BY PASS VLV**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*E4*	*2*	B	*GT*	*AIR*	*3*	*O/C*	*C*	*Active*
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		
12MS18	**12 MN STM & TRB BY PASS MS HDR BY PASS LINE AIR OPRD GATE VLV**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*C4*	*2*	B	*GT*	*AIR*	*3*	*O/C*	*C*	*Active*
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.MS-0001(Q)	STC	Q				100465		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13MS18	**13 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD BY PASS VLV**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*B4*	*2*	B	*GT*	*AIR*	*3*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

14MS18	**14 MN STM & TRB BY PASS MS HDR BY PASS LINE AIR OPRD GATE VLV**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*F4*	*2*	B	*GT*	*AIR*	*3*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0001(Q)	FSTC	Q				100465		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.MS-0001(Q)	STC	Q				100465		

11MS45	**11 MN STM & TRB BY-PASS AUX FDWTR PMP TRB 1MSE3 STM HDR ISOL VLV**									
205203-1	*Main, Reheat & Turbine By-pass Steam*	*G3*	*2*	B	*GT*	*MANUAL*	*6*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0003(Q)	FSC	Q				100694		

13MS45	**13 MN STM & TRB BY-PASS AUX FDWTR PMP TRB 1MSE3 STM HDR ISOL VLV**									
205203-1	*Main, Reheat & Turbine By-pass Steam*	*D3*	*2*	B	*GT*	*MANUAL*	*6*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0003(Q)	FSC	Q				100694		

11MS46	**11 MN STM & TRB BY PASS AUX FD PMP TURB STM SUP HDR CKVL**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*H3*	*2*	C	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0006(Q)	CTC	Q				101150		
S1.OP-ST.AF-0006(Q)	CTO	Q				101150		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13MS46	**13 MN STM & TRB BY PASS AUX FD PMP TURB STM SUP HDR CKVL**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*G3*	*2*	C	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.AF-0006(Q)	CTC	Q				101150		
S1.OP-ST.AF-0006(Q)	CTO	Q				101150		
1MS132	**1 MN STM & TRB BY PASS AUX FD PMP TURB AIR OPRD START-STOP VLV**							
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*H4*	*2*	B	*GT*	*AIR*	*6*	*C*	*O/C*	*Active*
S1.OP-ST.AF-0003(Q)	FSTO	Q				100694		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.AF-0003(Q)	STC	Q				100694		
S1.OP-ST.AF-0003(Q)	STO	Q				100694		
11MS167	**11 MN STM & TRB BY PASS HYD OPRD STM GEN ISOL VLV (MSIV)**							
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*F7*	*2*	B	*GT*	*STM*	*32*	*O*	*C*	*Active*
S1.OP-ST.MS-0003(Q)	FSTC	CS	CS-24			100944		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0003(Q)	STC	CS	CS-24			100944		
12MS167	**12 MN STM & TRB BY PASS STM GEN HYD OPRD ISOL VLV (MSIV)**							
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*D7*	*2*	B	*GT*	*STM*	*32*	*O*	*C*	*Active*
S1.OP-ST.MS-0003(Q)	FSTC	CS	CS-24			100944		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0003(Q)	STC	CS	CS-24			100944		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13MS167	**13 MN STM & TRB BY PASS HYD OPRD STM GEN ISOL VLV (MSIV)**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*C7*	*2*	B	*GT*	*STM*	*32*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0003(Q)	FSTC	CS	CS-24			100944		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0003(Q)	STC	CS	CS-24			100944		

14MS167	**14 MN STM & TRB BY PASS STM GEN HYD OPRD ISOL VLV (MSIV)**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*G7*	*2*	B	*GT*	*STM*	*32*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0003(Q)	FSTC	CS	CS-24			100944		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.MS-0003(Q)	STC	CS	CS-24			100944		

11MS169	**11 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD STM ASSIST VLV**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*G7*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-25			100554		

12MS169	**12 MN STM & TRB BY PASS MS HDR ATM VENT AIR OPERATED ANGLE VALVE**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*D8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-25			100554		

13MS169	**13 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD STM ASST VLV**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*C7*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-25			100554		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14MS169	**14 MN STM & TRB BY PASS MS HDR ATMOS VENT AIR OPRD ANGLE VLV**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*G8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-25			100554		

11MS171	**11 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD STM ASSIST VLV**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*G8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-25			100554		

12MS171	**12 MN STM & TRB BY PASS MS HDR ATM VENT AIR OPERATED ANGLE VALVE**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*D8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-25			100554		

13MS171	**13 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD STM ASST VLV**									
205203-1	*Main, Reheat, and Turbine Bypass Steam*	*D8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-25			100554		

14MS171	**14 MN STM & TRB BY PASS MS HDR ATMOS VENT AIR OPRD ANGLE VLV**									
205203-2	*Main, Reheat, and Turbine Bypass Steam*	*G8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100554		
S1.OP-ST.MS-0002(Q)	STO	CS	CS-25			100554		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1NT25	**1 REACT COOL PZR RELIEF TK NITROGEN SUPPLY AIR OPRD VLV**									
205201-1	*Reactor Coolant*	*C10*	*2*	*A*	*DIA*	*AIR*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290539		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		
1NT26	**1 REACT COOL NITROGEN SUPPLY TO PZR RELIEF TANK CHECK VLV**							
205201-1	*Reactor Coolant*	*C9*	*2*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-14		290540		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290540		
1NT32	**1 SAFETY INJ BOTTLED H.P. N2 TO ACCUMULATORS ISOL AIR OPRD GLB VLV**							
205234-3	*Safety Injection*	*H7*	*2*	*A*	*GB*	*AIR*	*1*	*O/C*	*C*	*Active*
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290541		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		
1NT34	**1 SAFETY INJ BOTTLED H.P. N2 TO ACCUMULATORS CHECK VLV**							
205234-3	*Safety Injection*	*H7*	*2*	*A/C*	*CK*	*SELF*	*1*	*O/C*	*C*	*Active*
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-14		290542		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290542		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1PR1	**1 POPS PRESSURIZER OUTLET AIR OPRD VLV**									
205201-1	*Reactor Coolant*	*F1*	*1*	B	*GB*	*AIR*	*3*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PZR-0003(Q)	FSTC	CS	CS-26			101288		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PZR-0003(Q)	STC	CS	CS-26			101288		
S1.OP-ST.PZR-0003(Q)	STO	CS	CS-26			101288		

1PR2	**1 POPS PRESSURIZER TO PRESSURIZER RELIEF TANK AIR OPRD VLV**									
205201-1	*Reactor Coolant*	*F2*	*1*	B	*GB*	*AIR*	*3*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PZR-0003(Q)	FSTC	CS	CS-26			101288		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PZR-0003(Q)	STC	CS	CS-26			101288		
S1.OP-ST.PZR-0003(Q)	STO	CS	CS-26			101288		

1PR3	**1 POPS PRESSURIZER SAFETY RELIEF VALVE**									
205201-1	*Reactor Coolant*	*F2*	*1*	C	*RV*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.RC-0001(Q)	RV	5YR				290193		

1PR4	**1 POPS PRESSURIZER SAFETY RELIEF VALVE**									
205201-1	*Reactor Coolant*	*F3*	*1*	C	*RV*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.RC-0001(Q)	RV	5YR				290195		

1PR5	**1 POPS PRESSURIZER SAFETY RELIEF VALVE**									
205201-1	*Reactor Coolant*	*F4*	*1*	C	*RV*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.RC-0001(Q)	RV	10YR				290197		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1PR6	**1 POPS PRESSURIZER RELIEF STOP MOTOR OPERATED VLV**									
205201-1	*Reactor Coolant*	*F1*	*1*	B	*GB*	*MO*	*3*	*O*	*O/C*	*Active*
1PR7	**1 POPS PRESSURIZER RELIEF STOP MOTOR OPERATED VLV**									
205201-1	*Reactor Coolant*	*F2*	*1*	B	*GB*	*MO*	*3*	*O*	*O/C*	*Active*
1PR17	**1 POPS PRESSURIZER RELIEF TANK TO GAS SAMPLE AIR OPRD VLV**									
205201-1	*Reactor Coolant*	*D9*	*2*	A	*GB*	*AIR*	*0.375*	*C*	*C*	*Active*
1PR18	**1 POPS PZR RELIEF TANK TO GAS SAMPLE AIR OPRD VLV**									
205201-1	*Reactor Coolant*	*D10*	*2*	A	*GB*	*AIR*	*0.375*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PZR-0002(Q)	STC	Q				101237		
S1.OP-ST.PZR-0002(Q)	STO	Q				101237		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PZR-0002(Q)	STC	Q				101237		
S1.OP-ST.PZR-0002(Q)	STO	Q				101237		
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290543		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290544		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1PR25	**1 POPS PRESSURIZER RELIEF TANK INLET CHECK VLV**									
205201-1	*Reactor Coolant*	*E9*	*2*	*A/C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-15		290545		
S1.OP-ST.ZZ-0003(Q)	CTO	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290545		

1PS1	**1 PZR PRESSURIZER SPRAY AIR OPRD VLV**									
205201-1	*Reactor Coolant*	*F5*	*1*	B	*GB*	*AIR*	*0.5*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PZR-0003(Q)	FSTC	CS	CS-27			101288		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PZR-0003(Q)	STC	CS	CS-27			101288		

1PS3	**1 PZR PRESSURIZER SPRAY AIR OPRD VLV**									
205201-1	*Reactor Coolant*	*D6*	*1*	B	*GB*	*AIR*	*0.5*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PZR-0003(Q)	FSTC	CS	CS-27			101288		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PZR-0003(Q)	STC	CS	CS-27			101288		

1RC40	**1 REACT COOL REACT HEAD VENT VLV 1RC40 SV**									
205201-1	*Reactor Coolant*	*G8*	*1*	B	*GB*	*SOL*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PZR-0003(Q)	FSTC	CS	CS-28			101288		
S1.OP-ST.RC-0009(Q)	PIT	2YR				100283		
S1.OP-ST.PZR-0003(Q)	STC	CS	CS-28			101288		
S1.OP-ST.PZR-0003(Q)	STO	CS	CS-28			101288		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1RC41	**1 REACT COOL REACT HEAD VENT VLV 1RC41 SV**									
205201-1	*Reactor Coolant*	*G7*	*1*	B	*GB*	*SOL*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PZR-0003(Q)	FSTC	CS	CS-28			101288		
S1.OP-ST.RC-0009(Q)	PIT	2YR				100283		
S1.OP-ST.PZR-0003(Q)	STC	CS	CS-28			101288		
S1.OP-ST.PZR-0003(Q)	STO	CS	CS-28			101288		

1RC42	**1 REACT COOL REACT HEAD VENT VLV 1RC42 SV**									
205201-1	*Reactor Coolant*	*G8*	*1*	B	*GB*	*SOL*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PZR-0003(Q)	FSTC	CS	CS-28			101288		
S1.OP-ST.RC-0009(Q)	PIT	2YR				100283		
S1.OP-ST.PZR-0003(Q)	STC	CS	CS-28			101288		
S1.OP-ST.PZR-0003(Q)	STO	CS	CS-28			101288		

1RC43	**1 REACT COOL REACT HEAD VENT VLV 1RC43 SV**									
205201-1	*Reactor Coolant*	*G7*	*1*	B	*GB*	*SOL*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PZR-0003(Q)	FSTC	CS	CS-28			101288		
S1.OP-ST.RC-0009(Q)	PIT	2YR				100283		
S1.OP-ST.PZR-0003(Q)	STC	CS	CS-28			101288		
S1.OP-ST.PZR-0003(Q)	STO	CS	CS-28			101288		

1RH1	**1 RHR COMMON SUCT MOT OP GATE VLV**									
205232-2	*Residual Heat Removal*	*G10*	*1*	A	*GT*	*MO*	*14*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0021(Q)	LT	2YR				101302		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.RHR-0004(Q)	STC	CS	CS-29			100583		
S1.OP-ST.RHR-0004(Q)	STO	CS	CS-29			100583		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1RH2	**1 RHR COMMON SUCT MOT OP GATE VLV**									
205232-2	*Residual Heat Removal*	*G10*	*1*	A	*GT*	*MO*	*14*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0021(Q)	LT	2YR				101302		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.RHR-0004(Q)	STC	CS	CS-29			100583		
S1.OP-ST.RHR-0004(Q)	STO	CS	CS-29			100583		

1RH3	**1 RHR SAF RLF VLV TO PZR RELIEF TANK**									
205232-2	*Residual Heat Removal*	*H9*	*2*	C	*RV*	*SELF*	*3*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290199		

11RH4	**11 RHR PMP SUCT MOV GATE VLV**									
205232-1	*Residual Heat Removal*	*E1*	*2*	B	*GT*	*MO*	*14*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.RHR-0003(Q)	STC	Q				100721		

12RH4	**12 RHR PMP SUCT GATE MOV**									
205232-2	*Residual Heat Removal*	*E1*	*2*	B	*GT*	*MO*	*14*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.RHR-0003(Q)	STC	Q				100721		

11RH8	**11 RHR PMP DISCH CHECK VALVE**									
205232-1	*Residual Heat Removal*	*E3*	*2*	C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RHR-0001(Q)	CTC	Q				100705		
S1.OP-ST.RHR-0001(Q)	CTO	CS	CS-30			101316		
S1.OP-ST.RHR-0001(Q)	PS	Q				100705		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12RH8	**12 RHR PMP DISCH CHECK VLV**									
205232-2	*Residual Heat Removal*	*F3*	*2*	C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RHR-0002(Q)	CTC	Q				100706		
S1.OP-ST.RHR-0002(Q)	CTO	CS	CS-30			101315		
S1.OP-ST.RHR-0002(Q)	PS	Q				100706		

11RH18	**11 RHR HX FLOW CONT AIR OPRD BTFL VLV**									
205232-1	*Residual Heat Removal*	*F8*	*2*	B	*BFY*	*AIR*	*8*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0005(Q)	FSTO	CS	CS-31			100404		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0005(Q)	STO	CS	CS-31			100404		

12RH18	**12 RHR HX FLOW CONT AIR OPRD BTFL VLV**									
205232-2	*Residual Heat Removal*	*F8*	*2*	B	*BFY*	*AIR*	*8*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0005(Q)	FSTO	CS	CS-31			100404		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0005(Q)	STO	CS	CS-31			100404		

11RH19	**11 RHR HX DISCH CROSS CONN MOV GATE VLV**									
205232-1	*Residual Heat Removal*	*E8*	*2*	B	*GT*	*MO*	*8*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.RHR-0004(Q)	STC	CS	CS-32			100583		

12RH19	**12 RHR HX DISCH CROSS CONN GATE MOV**									
205232-2	*Residual Heat Removal*	*E8*	*2*	B	*GT*	*MO*	*8*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.RHR-0004(Q)	STC	CS	CS-32			100583		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1RH21	**RHR Tie to Refueling Water Storage Tank**									
205232-1	*Residual Heat Removal*	*E8*	*2*	*A*	*GT*	*MAN*	*8*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RC-0008(Q)	LT	2YR				102265		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1RH25	**1 RHR SAF RLF VLV TO PZR RELIEF TANK**									
205232-1	*Residual Heat Removal*	*H9*	*2*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290201		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1RH26	**1 RHR HOT LEG ISOL GATE MOV**									
205232-1	*Residual Heat Removal*	*G10*	*1*	*B*	*GT*	*MO*	*12*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.RHR-0004(Q)	STC	CS	CS-33			100583		
S1.OP-ST.RHR-0004(Q)	STO	CS	CS-33			100583		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13RH27	**13 RHR HOT LEG CHECK VALVE**									
205232-1	*Residual Heat Removal*	*G10*	*1*	*A/C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-16		100744		
S1.OP-ST.RHR-0005(Q)	CTO	RF		RJ-16		100608		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14RH27	**14 RHR HOT LEG CHECK VALVE**									
205232-1	*Residual Heat Removal*	*G10*	*1*	*A/C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-16		100744		
S1.OP-ST.RHR-0005(Q)	CTO	RF		RJ-16		100608		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11RH29	**11 RHR PMP MIN FLOW MOV GLB VLV**									
205232-1	*Residual Heat Removal*	*G4*	*2*	B	*GB*	*MO*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.RHR-0003(Q)	STC	Q				100721		
S1.OP-ST.RHR-0003(Q)	STO	Q				100721		

12RH29	**12 RHR PMP MIN FLOW GLB MOV**									
205232-2	*Residual Heat Removal*	*G4*	*2*	B	*GB*	*MO*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.RHR-0003(Q)	STC	Q				100721		
S1.OP-ST.RHR-0003(Q)	STO	Q				100721		

1SA118	**1 STAT AIR HDR CONTAINMENT ISLN GATE VLV**									
205217-3	*Compressed Air*	*D9*	*2*	A	*GT*	*MAN*	*3*	*LC*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290546		

1SA119	**1 STAT AIR CONTAINMENT HDR CHECK VALVE**									
205217-3	*Compressed Air*	*D10*	*2*	A/C	*CK*	*SELF*	*3*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290547		

1SA262	**1 STAT AIR CONTAINMENT PRESS TEST ISLN GLB VALVE**									
205217-2	*Compressed Air*	*E8*	*2*	A	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290548		

1SA264	**1 STAT AIR CONTAINMENT PRESS TEST ISLN GLB VALVE**									
205217-2	*Compressed Air*	*E9*	*2*	A	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290549		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SA265	**1 STAT AIR CONTAINMENT PRESS TEST LINE ISLN GLB VALVE**									
205217-2	*Compressed Air*	*E8*	*2*	A	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
1SA267	**1 STAT AIR CONTAINMENT PRESS TEST LINE ISLN GLB VALVE**									
205217-2	*Compressed Air*	*E9*	*2*	A	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
1SA268	**1 STAT AIR CONTAINMENT PRESS TEST LINE ISLN GLB VALVE**									
205217-2	*Compressed Air*	*E8*	*2*	A	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
1SA270	**1 STAT AIR CONTAINMENT PRESS TEST LINE ISLN GLB VALVE**									
205217-2	*Compressed Air*	*E9*	*2*	A	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
1SF22	**1 SPNT FUEL CLG REFUEL WTR PURIF PMP SUCT FROM CANAL DIAPH VLV**									
205233-1	*Spent Fuel Pool Cooling*	*A6*	*2*	A	*DIA*	*MAN*	*3*	*C*	*C*	*Passive*
1SF36	**1 SPNT FUEL CLG REFUEL WTR PURIFICATION FILTER TO REFUELING CANAL**									
205233-1	*Spent Fuel Pool Cooling*	*A3*	*2*	A	*DIA*	*MAN*	*2*	*C*	*C*	*Passive*
1SJ1	**1 SAFETY INJ REF WTR STRG TK TO CHG PMPS STOP VLV**									
205234-1	*Safety Injection*	*F2*	*2*	B	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290550		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290551		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290552		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290553		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290554		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290556		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		
S1.OP-ST.SJ-0003(Q)	STO	Q				100723		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ2	**1 SAFETY INJ REF WTR STRG TK TO CHRG PMP STOP VLV**									
205234-1	*Safety Injection*	*F1*	*2*	B	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		
S1.OP-ST.SJ-0003(Q)	STO	Q				100723		

1SJ3	**1 SAFETY INJ TO CHG PMPS SUCT CHECK VLV**									
205234-1	*Safety Injection*	*E1*	*2*	C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0003(Q)	CTC	Q				100723		
S1.OP-ST.SJ-0016(Q)	CTO	RF		RJ-17		101056		
S1.OP-ST.CVC-0007(Q)	PS	CS		RJ-17		100582		

1SJ4	**1 SAFETY INJ BORON INJ TK INLET MOV**									
205234-1	*Safety Injection*	*B4*	*2*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		
S1.OP-ST.SJ-0003(Q)	STO	Q				100723		

1SJ5	**1 SAFETY INJ BORON INJ TK INLET MOV**									
205234-1	*Safety Injection*	*B4*	*2*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		

1SJ10	**BIT Thermal Relief Valve**									
205234-1	*Safety Injection*	*D7*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(LATER)		DCP 80038205

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ12	**1 SAFETY INJ BORON INJ TK OUTLET MOV**									
205234-1	*Safety Injection*	*D8*	*1*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		
S1.OP-ST.SJ-0003(Q)	STO	Q				100723		

1SJ13	**1 SAFETY INJ BORON INJ TK OUTLET MOV**									
205234-1	*Safety Injection*	*D8*	*1*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		
S1.OP-ST.SJ-0003(Q)	STO	Q				100723		

11SJ17	**11 SAFETY INJECTION BORON INJECTION TANK TO COLD LEG CHECK VALVE**									
205234-1	*Safety Injection*	*H7*	*1*	A/C	*CK*	*SELF*	*1.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-18		100744		
S1.OP-ST.SJ-0016(Q)	CTO	RF		RJ-18		101056		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

12SJ17	**12 SAFETY INJ BORON INJ TK TO COLD LEG CKVL**									
205234-1	*Safety Injection*	*H8*	*1*	A/C	*CK*	*SELF*	*1.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-18		100744		
S1.OP-ST.SJ-0016(Q)	CTO	RF		RJ-18		101056		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SJ17	**13 SAFETY INJ BORON INJ TK TO COLD LEG CKVL**									
205234-1	*Safety Injection*	*H10*	*1*	*A/C*	*CK*	*SELF*	*1.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-18		100744		
S1.OP-ST.SJ-0016(Q)	CTO	RF		RJ-18		101056		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

14SJ17	**14 SAFETY INJ BORON INJ TK TO COLD LEG CKVL**									
205234-1	*Safety Injection*	*H9*	*1*	*A/C*	*CK*	*SELF*	*1.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-18		100744		
S1.OP-ST.SJ-0016(Q)	CTO	RF		RJ-18		101056		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

11SJ29	**11 SAFETY INJ ACCUMULATOR SAF RLF VLV**									
205234-4	*Safety Injection*	*G2*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290207		

12SJ29	**12 SAFETY INJ ACCUMULATOR SAF RLF VLV**									
205234-4	*Safety Injection*	*G5*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290213		

13SJ29	**13 SAFETY INJ ACCUMULATOR SAF RLF VLV**									
205234-4	*Safety Injection*	*G7*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290215		

14SJ29	**14 SAFETY INJ ACCUMULATOR SAF RLF VLV**									
205234-4	*Safety Injection*	*G10*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290217		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ30	**1 SAFETY INJ REFUEL WTR STOR TK TO SAF INJ PMPS STOP MOV**									
205234-2	*Safety Injection*	*G2*	*2*	B	*GB*	*MO*	*8*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-35			100404		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ31	**1 SAFETY INJ REFUEL WTR STOR TK TO SAF INJ PMPS CHK VLV**									
205234-2	*Safety Injection*	*G2*	*2*	C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0003(Q)	CTC	Q				100723		
S1.OP-ST.SJ-0014(Q)	CTO	RF		RJ-19		100097		
S1.OP-ST.SJ-0001(Q)	PS	Q				100709		
S1.OP-ST.SJ-0002(Q)	PS	Q				100710		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ32	**1 SAFETY INJ PMP SUCT SAF RLF VLV**									
205234-2	*Safety Injection*	*G5*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290219		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SJ33	**11 SAFETY INJ PMP SUCT MOV**									
205234-2	*Safety Injection*	*G2*	*2*	B	*GT*	*MO*	*6*	*O*	*O*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SJ33	**12 SAFETY INJ PMP SUCT MOV**									
205234-2	*Safety Injection*	*G5*	*2*	B	*GT*	*MO*	*6*	*O*	*O*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SJ34	**11 SAFETY INJECTION PUMP DISCHARGE CHECK VALVE**									
205234-2	*Safety Injection*	*D5*	*2*	C	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0002(Q)	CTC	Q				100710		
S1.OP-ST.SJ-0014(Q)	CTO	RF		RJ-20		100097		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SJ34	**12 SAFETY INJECTION PUMP DISCHARGE CHECK VALVE**									
205234-2	*Safety Injection*	*D7*	*2*	C	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0001(Q)	CTC	Q				100709		
S1.OP-ST.SJ-0014(Q)	CTO	RF		RJ-20		100097		

11SJ39	**11 SAFETY INJ HDR SAF RLF VLV**									
205234-2	*Safety Injection*	*D8*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290221		

12SJ39	**12 SAFETY INJ HDR SAF RLF VLV**									
205234-2	*Safety Injection*	*D8*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290223		

11SJ40	**11 SAFETY INJ PMP DISCH TO HOT LEG HDR STOP MOV**									
205234-2	*Safety Injection*	*G9*	*1*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-36			100404		
S1.OP-ST.SJ-0005(Q)	STO	CS	CS-36			100404		

12SJ40	**12 SAFETY INJ HDR STOP MOV**									
205234-2	*Safety Injection*	*G8*	*1*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-36			100404		
S1.OP-ST.SJ-0005(Q)	STO	CS	CS-36			100404		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SJ43	**11 SI/RHR HEAT EXCHANGER TO COLD LEG CHECK VALVE**									
205234-4	*Safety Injection*	*E3*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-21		100744		
SC.MD-PM.ZZ-0075(Q)	CTO	SAM		RJ-21		203790	TP-5	Disassembly & Inspection Method
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		
S1.OP-ST.SJ-0005(Q)	PS	CS		RJ-21		100404		

12SJ43	**12 SAFETY INJ COLD LEG LINE CHECK VLV**									
205234-4	*Safety Injection*	*E5*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-21		100744		
SC.MD-PM.ZZ-0075(Q)	CTO	SAM		RJ-21		204018	TP-5	Disassembly & Inspection Method
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		
S1.OP-ST.SJ-0005(Q)	PS	CS		RJ-21		100404		

13SJ43	**13 SAFETY INJ RESID HT REMOVAL HT EXCHG TO COLD LEG CHECK VLV**									
205234-4	*Safety Injection*	*D8*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-21		100744		
SC.MD-PM.ZZ-0075(Q)	CTO	SAM		RJ-21		204022	TP-5	Disassembly & Inspection Method
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		
S1.OP-ST.SJ-0005(Q)	PS	CS		RJ-21		100404		

14SJ43	**14 SAFETY INJ RESID HT REMOVAL HT EXCHG TO COLD LEG CHECK VLV**									
205234-4	*Safety Injection*	*D11*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-21		100744		
SC.MD-PM.ZZ-0075(Q)	CTO	SAM		RJ-21		204025	TP-5	Disassembly & Inspection Method
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		
S1.OP-ST.SJ-0005(Q)	PS	CS		RJ-21		100404		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SJ44	**11 SAFETY INJECTION CONTAINMENT SUMP SUCTION STOP MOV**									
205234-3	*Safety Injection*	*B3*	*2*	B	*GT*	*MO*	*14*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR			RR-04	101399		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-37			100404		
S1.OP-ST.SJ-0005(Q)	STO	CS	CS-37			100404		

12SJ44	**12 SAFETY INJECTION CONTAINMENT SUMP SUCTION STOP MOV**									
205234-3	*Safety Injection*	*B3*	*2*	B	*GT*	*MO*	*14*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR			RR-04	101400		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-37			100404		
S1.OP-ST.SJ-0005(Q)	STO	CS	CS-37			100404		

11SJ45	**11 SAFETY INJ RESID HEAT REMOVAL TO SAF INJ PMP STOP MOV**									
205234-2	*Safety Injection*	*G6*	*2*	B	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0005(Q)	STO	CS	CS-38			100404		

12SJ45	**12 SAFETY INJ RESIDUAL HEAT REMOVAL PMP TO CHGING PMPS STOP MOV**									
205234-1	*Safety Injection*	*E3*	*2*	B	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0005(Q)	STO	CS	CS-38			100404		

11SJ48	**11 SAFETY INJECTION LOW HEAD LINE SAFETY RELIEF VALVE**									
205234-3	*Safety Injection*	*H6*	*2*	C	*RV*	*SELF*	*2.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290225		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SJ48	**12 SAFETY INJ LOW HEAD LINE SAF RLF VLV**									
205234-3	*Safety Injection*	*E6*	*2*	C	*RV*	*SELF*	*2.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290227		
11SJ49	**11 SAFETY INJ RESID HT REMOVAL OUTLET TO COLD LEG MOV**							
205234-3	*Safety Injection*	*G7*	*1*	B	*GT*	*MO*	*8*	*O* / *O/C* / *Active*
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-39			100404		
12SJ49	**12 SAFETY INJ RESID HT REMOVAL OUTLET TO COLD LEG MOV**							
205234-3	*Safety Injection*	*D6*	*1*	B	*GT*	*MO*	*8*	*O* / *O/C* / *Active*
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-39			100404		
1SJ53	**1 SAFETY INJ HDR TEST AIR OPRD GATE VLV**							
205234-2	*Safety Injection*	*F10*	*1*	A	*GB*	*AIR*	*0.75*	*C* / *C* / *Passive*
S1.OP-ST.SJ-0003(Q)	FSTC	Q				100723		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290558		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		
11SJ54	**11 SAFETY INJ ACCUMULATOR OUTLET MOV**							
205234-4	*Safety Injection*	*E2*	*1*	B	*GT*	*MO*	*10*	*O* / *O/C* / *Active*
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.SJ-0004(Q)	STC	CS	CS-40			100436		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SJ54	**12 SAFETY INJ ACCUMULATOR OUTLET MOV**									
205234-4	*Safety Injection*	*E4*	*1*	B	*GT*	*MO*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.SJ-0004(Q)	STC	CS	CS-40			100436		

13SJ54	**13 SAFETY INJ ACCUMULATOR OUTLET MOV**									
205234-4	*Safety Injection*	*E7*	*1*	B	*GT*	*MO*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.SJ-0004(Q)	STC	CS	CS-40			100436		

14SJ54	**14 SAFETY INJ ACCUMULATOR OUTLET MOV**									
205234-4	*Safety Injection*	*E10*	*1*	B	*GT*	*MO*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.SJ-0004(Q)	STC	CS	CS-40			100436		

11SJ55	**11 SAFETY INJ ACCUMULATOR OUTLET LINE TO COLD LEG CHECK VLV**									
205234-4	*Safety Injection*	*D2*	*1*	A/C	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF			RR-01	100744		
S1.OP-ST.SJ-0006(Q)	CTO	RF			RR-01	100635		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

12SJ55	**12 SAFETY INJ ACCUMULATOR OUTLET TO COLD LEG CHECK VLV**									
205234-4	*Safety Injection*	*D4*	*1*	A/C	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF			RR-01	100744		
S1.OP-ST.SJ-0006(Q)	CTO	RF			RR-01	100635		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SJ55	**13 SAFETY INJ ACCUMULATOR OUTLET CHECK VLV**									
205234-4	*Safety Injection*	*D7*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF			RR-01	100744		
S1.OP-ST.SJ-0006(Q)	CTO	RF			RR-01	100635		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

14SJ55	**14 SAFETY INJ ACCUMULATOR OUTLET TO COLD LEG CHECK VLV**									
205234-4	*Safety Injection*	*D10*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF			RR-01	100744		
S1.OP-ST.SJ-0006(Q)	CTO	RF			RR-01	100635		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

11SJ56	**11 SAFETY INJECTION ACCUMULATOR OUTLET TO COLD LEG CHECK VALVE**									
205234-4	*Safety Injection*	*C2*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF			RR-02	100744		
S1.OP-ST.SJ-0006(Q)	CTO	RF			RR-02	100635		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		
S1.OP-ST.SJ-0005(Q)	PS	CS			RR-02	100404		

12SJ56	**12 SAFETY INJECTION ACCUMULATOR OUTLET TO COLD LEG CHECK VALVE**									
205234-4	*Safety Injection*	*C4*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF			RR-02	100744		
S1.OP-ST.SJ-0006(Q)	CTO	RF			RR-02	100635		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		
S1.OP-ST.SJ-0005(Q)	PS	CS			RR-02	100404		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SJ56	**13 SAFETY INJECTION ACCUMULATOR OUTLET TO COLD LEG CHECK VALVE**									
205234-4	*Safety Injection*	*C7*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF			RR-02	100744		
S1.OP-ST.SJ-0006(Q)	CTO	RF			RR-02	100635		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		
S1.OP-ST.SJ-0005(Q)	PS	CS			RR-02	100404		

14SJ56	**14 SAFETY INJECTION ACCUMULATOR OUTLET TO COLD LEG CHECK VALVE**									
205234-4	*Safety Injection*	*C10*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF			RR-02	100744		
S1.OP-ST.SJ-0006(Q)	CTO	RF			RR-02	100635		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		
S1.OP-ST.SJ-0005(Q)	PS	CS			RR-02	100404		

1SJ60	**1 SAFETY INJ ACCUMULATOR TEST LINE AIR OPRD STOP GLB VLV**									
205234-4	*Safety Injection*	*B4*	*1*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0003(Q)	FSTC	Q				100723		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290559		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		

1SJ63	**1 SAFETY INJ HOT LEG HEADER ACCUMULATOR INLET AIR OPERATED GLOBE VALVE**									
205234-4	*Safety Injection*	*B6*	*1*	*B*	*GB*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0003(Q)	FSTC	Q				100723		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SJ64	**11 SAFETY INJ PMP DISCH MIN FLOW CHECK VLV**									
205234-2	*Safety Injection*	*D4*	*2*	C	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0002(Q)	CTC	Q				100710		
S1.OP-ST.SJ-0001(Q)	CTO	Q				100709		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SJ64	**12 SAFETY INJ PMP MIN FLOW CHK VLV**									
205234-2	*Safety Injection*	*D7*	*2*	C	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0001(Q)	CTC	Q				100709		
S1.OP-ST.SJ-0002(Q)	CTO	Q				100710		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ67	**1 SAFETY INJ PMP MIN FLOW CONTRL VLV**									
205234-2	*Safety Injection*	*C3*	*2*	B	*GB*	*MO*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-41			100404		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ68	**1 SAFETY INJ PMP MIN FLOW CONTRL VLV**									
205234-2	*Safety Injection*	*C2*	*2*	B	*GB*	*MO*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-41			100404		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ69	**1 SAFETY INJ RESID HT REMOVAL SUCT FROM REFUEL WTR STOR TK MOV**									
205234-3	*Safety Injection*	*D1*	*2*	B	*GT*	*MO*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.RHR-0004(Q)	STC	CS	CS-42			100583		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ70	**1 SAFETY INJ REFUEL WTR STOR TK HDR CHECK VLV**									
205234-3	*Safety Injection*	*E1*	*2*	C	*CK*	*SELF*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RHR-0005(Q)	CTC	RF		RJ-23		100608		
S1.OP-ST.RHR-0005(Q)	CTO	RF		RJ-23		100608		
11SJ93	**11 SAFETY INJ ACCUMULATOR N2 INLET AIR OPRD GLB VLV**							
205234-4	*Safety Injection*	*G2*	*3*	B	*GB*	*AIR*	*1*	*C* / *C* / *Passive*
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
12SJ93	**12 SAFETY INJ ACCUMULATOR N2 INLET AIR OPRD STOP GLB VLV**							
205234-4	*Safety Injection*	*G4*	*3*	B	*GB*	*AIR*	*1*	*C* / *C* / *Passive*
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
13SJ93	**13 SAFETY INJ ACCUMULATOR N2 INLET AIR OPRD STOP GLB VLV**							
205234-4	*Safety Injection*	*G7*	*3*	B	*GB*	*AIR*	*1*	*C* / *C* / *Passive*
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
14SJ93	**14 SAFETY INJ ACCUMULATOR N2 INLET STOP AIR OPRD GLB VLV**							
205234-4	*Safety Injection*	*G10*	*3*	B	*GB*	*AIR*	*1*	*C* / *C* / *Passive*
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
11SJ113	**11 SAFETY INJ PMP CROSS OVER MOV**							
205234-1	*Safety Injection*	*E2*	*2*	B	*GT*	*MO*	*4*	*C* / *O/C* / *Active*
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.SJ-0003(Q)	STO	Q				100723		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SJ113	**12 SAFETY INJ PMP CROSS OVER MOV**									
205234-1	*Safety Injection*	*E3*	*2*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		
S1.OP-ST.SJ-0003(Q)	STO	Q				100723		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ123	**1 SAFETY INJ ACCUMULATOR TEST LINE AIR OPRD STOP GLB VLV**									
205234-4	*Safety Injection*	*B4*	*1*	A	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0003(Q)	FSTC	Q				100723		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290560		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SJ134	**11 SAFETY INJ PMP DISCH TO COLD LEG MOV**									
205234-2	*Safety Injection*	*F9*	*2*	B	*GT*	*MO*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SJ134	**12 SAFETY INJ PMP TO COLD LEGS MOV**									
205234-2	*Safety Injection*	*F8*	*2*	B	*GT*	*MO*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ135	**1 SAFETY INJ PMPS TO COLD LEG MOV**									
205234-2	*Safety Injection*	*G9*	*1*	B	*GT*	*MO*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.SJ-0005(Q)	STC	CS	CS-43			100404		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SJ139	**11 SAFETY INJ PMP DISCH TO HOT LEG CHK VLV**									
205234-3	*Safety Injection*	*D11*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-24		100744		
S1.OP-ST.SJ-0015(Q)	CTO	RF		RJ-24		101055		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

12SJ139	**12 SAFETY INJ PMP DISCH TO HOT LEG CHK VLV**									
205234-3	*Safety Injection*	*C11*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-24		100744		
S1.OP-ST.SJ-0015(Q)	CTO	RF		RJ-24		101055		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

13SJ139	**13 SAFETY INJ HOT LEG CHK VLV**									
205234-3	*Safety Injection*	*G10*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-24		100744		
S1.OP-ST.SJ-0015(Q)	CTO	RF.		RJ-24		101055		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

14SJ139	**14 SAFETY INJ HOT LEG CHECK VLV**									
205234-3	*Safety Injection*	*G8*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-24		100744		
S1.OP-ST.SJ-0015(Q)	CTO	RF		RJ-24		101055		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SJ144	**11 SAFETY INJECTION COLD LEG LINE CHECK VALVE**									
205234-4	*Safety Injection*	*D3*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-25		100744		
S1.OP-ST.SJ-0014(Q)	CTO	RF		RJ-25		100097		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

12SJ144	**12 SAFETY INJ COLD LEG FLOW CHECK VLV**									
205234-4	*Safety Injection*	*F6*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-25		100744		
S1.OP-ST.SJ-0014(Q)	CTO	RF		RJ-25		100097		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

13SJ144	**13 SAFETY INJ COLD LEG HDR CHECK VLV**									
205234-4	*Safety Injection*	*F8*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-25		100744		
S1.OP-ST.SJ-0014(Q)	CTO	RF		RJ-25		100097		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

14SJ144	**14 SAFETY INJ COLD LEG LINE CHECK VLV**									
205234-4	*Safety Injection*	*F11*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-25		100744		
S1.OP-ST.SJ-0014(Q)	CTO	RF		RJ-25		100097		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ150	**1 SAFETY INJECTION BORON INJECTION TANK TO COLD LEG CHECK VALVE**									
205234-1	*Safety Injection*	*F9*	*1*	*A/C*	*CK*	*SELF*	*3*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-26		100744		
S1.OP-ST.SJ-0016(Q)	CTO	RF		RJ-26		101056		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

11SJ156	**11 SAFETY INJ HOT LEG CHK VLV**									
205234-3	*Safety Injection*	*G11*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-27		100744		
S1.OP-ST.SJ-0015(Q)	CTO	RF		RJ-27		101055		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

12SJ156	**12 SAFETY INJ HOT LEG CHK VLV**									
205234-3	*Safety Injection*	*G11*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-27		100744		
S1.OP-ST.SJ-0015(Q)	CTO	RF		RJ-27		101055		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

13SJ156	**13 SAFETY INJ HOT LEG CHK VLV**									
205234-3	*Safety Injection*	*H9*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-27		100744		
S1.OP-ST.SJ-0015(Q)	CTO	RF		RJ-27		101055		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14SJ156	**14 SAFETY INJ HOT LEG CHK VLV**									
205234-3	*Safety Injection*	*H9*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0020(Q)	CTC	RF		RJ-27		100744		
S1.OP-ST.SJ-0015(Q)	CTO	RF		RJ-27		101055		
S1.OP-ST.SJ-0020(Q)	LT	2YR				100744		

1SJ158	**1 SAFETY INJECTION TEST LINE AIR OPERATED STOP GLOBE VALVE**									
205234-4	*Safety Injection*	*H1*	*1*	B	*GB*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0003(Q)	FSTC	Q				100723		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		

1SJ159	**1 SAFETY INJECTION AIR OPERATED STOP VALVE**									
205234-4	*Safety Injection*	*B8*	*1*	B	*GB*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0003(Q)	FSTC	Q				100723		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		

1SJ166	**1 SAFETY INJ BORON INJ TANK TO COLD LEG TEST LINE AIR OPER GLOBE VLV**									
205234-1	*Safety Injection*	*E9*	*1*	B	*GB*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0003(Q)	FSTC	Q				100723		
S1.OP-ST.RPI-0002(Q)	RPI	2YR				100299		
S1.OP-ST.SJ-0003(Q)	STC	Q				100723		

1SJ167	**1 SAFETY INJ COLD LEG SAF RLF VLV**									
205234-2	*Safety Injection*	*G8*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290229		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SJ417	**SJ SYSTEM TEST LINE THERMAL OVERPRESSURIZATION PROTECTION RV**									
205234-3	*Safety Injection*	*D8*	*2*	*C*	*RV*	*SELF*	*.75*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007)Q)	RV	10YR				(later)		DCP 1EC-3718

1SS27	**1 SMPLG SYS ACCUMULATOR SAMPLE HEADER ISLN AIR OPRD GLB VLV**									
205244-1	*Sampling*	*E6*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290561		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

1SS33	**1 SMPLG SYS REACT COOL SAMPLE HEADER ISLN AIR OPRD GLB VLV**									
205244-1	*Sampling*	*G6*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290563		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

1SS49	**1 SMPLG SYS PZR LIQUID SAMPLE ISLN AIR OPRD GLB VLV**									
205244-1	*Sampling*	*G6*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290565		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SS64	**1 SMPLG SYS PZR STEAM SAMPLE ISLN AIR OPRD GLB VLV**									
205244-1	*Sampling*	*H6*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290567		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

11SS94	**11 SMPLG SYS STM GEN BLOWDOWN ISLN AIR OPRD GLB VLV**									
205244-1	*Sampling*	*D7*	*2*	*B*	*GB*	*AIR*	*0.375*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

12SS94	**12 SMPLG SYS FROM STM GEN BLOWDOWN LINE AIR OPRD GLB VLV**									
205244-1	*Sampling*	*C7*	*2*	*B*	*GB*	*AIR*	*0.375*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

13SS94	**13 SMPLG SYS FROM STM GEN BLOWDOWN LINE AIR OPRD GLB VLV**									
205244-1	*Sampling*	*B7*	*2*	*B*	*GB*	*AIR*	*0.375*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14SS94	**14 SMPLG SYS FROM STM GEN BLOWDOWN LINE AIR OPRD GLB VLV**									
205244-1	*Sampling*	*A7*	*2*	B	*GB*	*AIR*	*0.375*	O	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

1SS103	**1 SMPLG SYS ACCUMULATOR SAMPLE HEADER ISLN AIR OPRD GLB VLV**									
205244-1	*Sampling*	*E7*	*2*	A	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290562		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

1SS104	**1 SMPLG SYS REACT COOL SAMP HEADER ISLN AIR OPRD GLB VLV**									
205244-1	*Sampling*	*G7*	*2*	A	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290564		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

1SS107	**1 SMPLG SYS PZR LIQUID SAMPLE HEADER ISLN AIR OPRD GLB VLV**									
205244-1	*Sampling*	*G7*	*2*	A	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290566		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SS110	**1 SMPLG SYS PZR STEAM SAMPLE HEADER ISLN AIR OPRD GLB VLV**									
205244-1	*Sampling*	*H7*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290568		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

11SS181	**11 SMPLG SYS OUTBOARD HOT LEG AIR OPRD GLB VLV**									
205244-3	*Sampling*	*C7*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290569		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

13SS181	**13 SMPLG SYS OUTBOARD HOT LEG AIR OPRD GLB VLV**									
205244-3	*Sampling*	*D7*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1 RA-IS.ZZ-0001(Q)	LJ	18MO				290573		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.PAS-0001(Q)	STC	Q				100570		

11SS182	**11 SMPLG SYS INBOARD HOT LEG AIR OPRD GLB VLV**									
205244-3	*Sampling*	*C8*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290570		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1 OP-ST.PAS-0001(Q)	STC	Q				100570		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SS182	**13 SMPLG SYS INBOARD HOT LEG AIR OPRD GLB VLV**									
205244-3	*Sampling*	*D8*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1 RA-IS.ZZ-0001(Q)	LJ	18MO				290574		
S1 OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SS184	**13 SMPLG SYS INBOARD HOT LEG RETURN AIR OPRD GLB VLV**									
205244-3	*Sampling*	*C8*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290575		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.PAS-0001(Q)	STC	Q				100570		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SS185	**13 SMPLG SYS OUTBOARD HOT LEG RETURN AIR OPRD GLB VLV**									
205244-3	*Sampling*	*C7*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290576		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.PAS-0001(Q)	STC	Q				100570		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SS188	**11 SMPLG SYS TO CONTAINMENT SUMP AIR OPRD GLB VLV**									
205244-3	*Sampling*	*B8*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1 RA-IS.ZZ-0001(Q)	LJ	18MO				290571		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1 OP-ST.PAS-0001(Q)	STC	Q				100570		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SS189	**11 SMPLG SYS TO CONTAINMENT SUMP AIR OPRD GLB VLV**									
205244-3	*Sampling*	*B7*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.PAS-0001(Q)	FSTC	Q				100570		
S1.RA-IS.ZZ-0001(Q)	LJ	18M0				290572		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.PAS-0001(Q)	STC	Q				100570		

1SS650	**SAMPLING SYSTEM THERMAL OVERPRESSURIZATION PROTECTION RV**									*AUGMENTED*
205244-1	*Sampling*	*E8*	*N*	*C*	*RV*	*SELF*	*.5*	*C*	*O*	*Active*

SC MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3687, see PMCR 970527197

1SS653	**SAMPLING SYSTEM THERMAL OVERPRESSURIZATION PROTECTION RV**									
205244-1	*Sampling*	*E8*	*2*	*C*	*RV*	*SELF*	*.5*	*C*	*O/C*	*Active*

S1 RA-IS.ZZ-0001(Q)	LJ	18MO				2900562		Added per DCP 1EC-3687 Pkg. 1.
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3687, see PMCR 970527197

1SV1198	**PORV AIR ACCUMULATOR SUPPLY SOLENOID VALVE**									*AUGMENTED*
205247-3	*No. 1 Unit - React. Cont. & Penetration Area*	*H7*	*N*	*B*	*3WAY*	*SOL*	*1*	*C*	*O*	*Active*

S1.RA-IS.PZR-0026(Q)	FSTO	RF		RJ-28		101093		
S1.RA-IS.PZR-0026(Q)	STO	RF		RJ-28		101093		

1SV1199	**PORV AIR ACCUMULATOR SUPPLY SOLENOID VALVE**									*AUGMENTED*
205247-3	*No. 1 Unit - React. Cont. & Penetration Area*	*H7*	*N*	*B*	*3WAY*	*SOL*	*1*	*C*	*O*	*Active*

S1.RA-IS.PZR-0026(Q)	FSTO	RF		RJ-28		101093		
S1 RA-IS.PZR-0026(Q)	STO	RF		RJ-28		101093		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW2	**11 SERVICE WATER AUTO STR OUTLET CHK VLV**									
205242-1	*Service Water Nuclear Area*	*C7*	*3*	*C*	*CK*	*SELF*	*20*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0001(Q)	CTC	Q				100711		
S1.OP-ST.SW-0001(Q)	CTO	Q				100711		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW2	**12 SVCE WTR AUTO STR OUTLET CHK VLV**									
205242-1	*Service Water Nuclear Area*	*E7*	*3*	*C*	*CK*	*SELF*	*20*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0002(Q)	CTC	Q				100712		
S1 OP-ST.SW-0002(Q)	CTO	Q				100712		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SW2	**13 SVCE WTR AUTO STR OUTLET CHK VLV**									
205242-1	*Service Water Nuclear Area*	*G7*	*3*	*C*	*CK*	*SELF*	*20*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0003(Q)	CTC	Q				100713		
S1.OP-ST.SW-0003(Q)	CTO	Q				100713		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14SW2	**14 SVCE WTR AUTO STR TO DISCH HEADER CHK VLV**									
205242-2	*Service Water Nuclear Area*	*C7*	*3*	*C*	*CK*	*SELF*	*20*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0004(Q)	CTC	Q				100714		
S1 OP-ST.SW-0004(Q)	CTO	Q				100714		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
15SW2	**15 SVCE WTR AUTO STR TO DISCH HEADER CHK VLV**									
205242-2	*Service Water Nuclear Area*	*E7*	*3*	*C*	*CK*	*SELF*	*20*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0005(Q)	CTC	Q				100715		
S1.OP-ST.SW-0005(Q)	CTO	Q				100715		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
16SW2	**16 SVCE WTR AUTO STR TO DISCH HEADER CHK VLV**									
205242-2	*Service Water Nuclear Area*	*G7*	*3*	*C*	*CK*	*SELF*	*20*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0006(Q)	CTC	Q				100716		
S1.OP-ST.SW-0006(Q)	CTO	Q				100716		
12SW5	**12 SVCE WTR PMP DISCH HEADER TO NUCLEAR HEADER CKVL**							
205242-1	*Service Water Nuclear Area*	*E8*	*3*	*C*	*DCK*	*SELF*	*24*	*O/C*	*O/C*	*Active*
SC.MD-PM.ZZ-0123Q)	CTC	SAM		RJ-29		203455	TP-5	Disassembly & Inspection Method
SC.MD-PM.ZZ-0123Q)	CTO	SAM		RJ-29		203455	TP-5	Disassembly & Inspection Method
S1.OP-ST.SW-0003(Q)	PS	Q				100713		
S1.OP-ST.SW-0002(Q)	PS	Q				100712		
S1.OP-ST.SW-0006(Q)	PS	Q				100716		
S1.OP-ST.SW-0001(Q)	PS	Q				100711		
S1.OP-ST.SW-0005(Q)	PS	Q				100715		
14SW5	**14 SVCE WTR PMP DISCH HEADER TO NUCLEAR HEADER CHK VLV**							
205242-2	*Service Water Nuclear Area*	*G8*	*3*	*C*	*DCK*	*SELF*	*24*	*O/C*	*O/C*	*Active*
SC MD-PM.ZZ-0123Q)	CTC	SAM		RJ-29		203457	TP-5	Disassembly & Inspection Method
SC.MD-PM.ZZ-0123Q)	CTO	SAM		RJ-29		203457	TP-5	Disassembly & Inspection Method
S1 OP-ST.SW-0004(Q)	PS	Q				100714		
11SW13	**11 SVCE WTR PMP MTR BRG CLR OUTLET CHECK VLV**							
205242-1	*Service Water Nuclear Area*	*C4*	*3*	*C*	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*
S1 OP-ST.SW-0001(Q)	CTO	Q				100711		
12SW13	**12 SVCE WTR PMP MTR BRG CLR OUTLET CHK VLV**							
205242-1	*Service Water Nuclear Area*	*E4*	*3*	*C*	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*
S1.OP-ST.SW-0002(Q)	CTO	Q				100712		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SW13	**13 SVCE WTR PMP MTR BRG CLR OUTLET CHK VLV**									
205242-1	*Service Water Nuclear Area*	*G4*	*3*	C	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0003(Q)	CTO	Q				100713		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14SW13	**14 SVCE WTR PMP MTR BRG CLR OUTLET CHK VLV**									
205242-2	*Service Water Nuclear Area*	*C4*	*3*	C	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0004(Q)	CTO	Q				100714		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
15SW13	**15 SVCE WTR PMP MTR BRG CLR OUTLET CHK VLV**									
205242-2	*Service Water Nuclear Area*	*E4*	*3*	C	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0005(Q)	CTO	Q				100715		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
16SW13	**16 SVCE WTR PMP MTR BRG CLR OUTLET CHK VLV**									
205242-2	*Service Water Nuclear Area*	*G4*	*3*	C	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0006(Q)	CTO	Q				100716		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW17	**11 SVCE WTR DISCH HEADER INTERTIE MTR OPRD BTFL VLV**									
205242-1	*Service Water Nuclear Area*	*G7*	*3*	B	*BFY*	*MO*	*30*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.RPI-0005(Q)	PIT	2YR				100300		
S1 OP-ST.SW-0007(Q)	STO	Q				100725		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW17	**12 SVCE WTR DISCH HEADER INTER-TIE MTR OPRD BTFL VLV**									
205242-2	*Service Water Nuclear Area*	*C7*	*3*	B	*BFY*	*MO*	*30*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.RPI-0005(Q)	PIT	2YR				100300		
S1 OP-ST.SW-0007(Q)	STO	Q				100725		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW20	**11 SERVICE WATER DISCHARGE HEADER TO TURBINE AREA MTR OPRD BTFL VLV**									
205242-1	*Service Water Nuclear Area*	*C7*	*3*	B	*BFY*	*MO*	*30*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.RPI-0005(Q)	PIT	2YR				100300		
S1.OP-ST.SW-0007(Q)	STC	Q				100725		
12SW20	**12 SVCE WTR NUCLEAR HEADER LINE INLET MTR OPRD BTFL VLV**							
205242-1	*Service Water Nuclear Area*	*E8*	*3*	B	*BFY*	*MO*	*24*	*O*	*O*	*Active*
S1 OP-ST.RPI-0005(Q)	PIT	2YR				100300		
S1 OP-ST.SW-0007(Q)	STO	Q				100725		
13SW20	**13 SVCE WTR DISCH HEADER TO TURB AREA MTR OPRD BTFL VLV**							
205242-2	*Service Water Nuclear Area*	*F7*	*3*	B	*BFY*	*MO*	*30*	*O/C*	*C*	*Active*
S1 OP-ST.RPI-0005(Q)	PIT	2YR				100300		
S1 OP-ST.SW-0007(Q)	STC	Q				100725		
14SW20	**14 SVCE WTR PMP DISCH HEADER TO NUCLEAR HEADER MTR OPRD BFLY VLV**							
205242-2	*Service Water Nuclear Area*	*G7*	*3*	B	*BFY*	*MO*	*24*	*O*	*O*	*Active*
S1.OP-ST.RPI-0005(Q)	PIT	2YR				100300		
S1 OP-ST.SW-0007(Q)	STO	Q				100725		
11SW21	**11 SVCE WTR NUCLEAR HEADER TO DSL GEN JKT WTR CLR 1A BTFL MOV**							
205242-3	*Service Water Nuclear Area*	*H6*	*3*	B	*BFY*	*MO*	*8*	*O*	*O*	*Passive*
S1 OP-ST.RPI-0001(Q)	PIT	2YR				100298		
12SW21	**12 SVCE WTR NUCLEAR HEADER TO DSL GEN JKT WTR CLR 1A BTFL MOV**							
205242-3	*Service Water Nuclear Area*	*H6*	*3*	B	*BFY*	*MO*	*8*	*O*	*O*	*Passive*
S1 OP-ST.RPI-0001(Q)	PIT	2YR				100298		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW22	**11 SVCE WTR NUCLEAR HEADER MTR OPR BTFL VLV**									
205242-3	*Service Water Nuclear Area*	*G5*	*3*	B	*BFY*	*MO*	*24*	O	O	*Passive*
12SW22	**12 SVCE WTR NUCLEAR HEADER MTR OPRD BTFL ISLN VLV**									
205242-3	*Service Water Nuclear Area*	*G5*	*3*	B	*BFY*	*MO*	*24*	O	O	*Passive*
11SW23	**11 SVCE WTR NUCLEAR HEADER INTER-TIE MTR OPRD BTFL VLV**									
205242-3	*Service Water Nuclear Area*	*F5*	*3*	B	*BFY*	*MO*	*24*	C	C	*Active*
12SW23	**12 SVCE WTR NUCLEAR HEADER INTER-TIE MTR OPRD BTFL VLV**									
205242-3	*Service Water Nuclear Area*	*F6*	*3*	B	*BFY*	*MO*	*24*	C	C	*Active*
1SW26	**1 SVCE WTR DISCH HEADER TO TURB AREA MTR OPRD BTFL VLV**									
205242-1	*Service Water Nuclear Area*	*C8*	*3*	B	*BFY*	*MO*	*30*	O	C	*Active*
11SW34	**11 SVCE WTR NUCLEAR HEADER TO DSL GEN JKT WTR CLR A CHK VLV**									
205242-3	*Service Water Nuclear Area*	*H7*	*3*	C	*DCK*	*SELF*	*6*	C	O	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SW-0007(Q)	STC	Q				100725		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SW-0007(Q)	STC	Q				100725		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1 OP-ST.SW-0011(Q)	STC	RF		RJ-30		100885		
S1 OP-ST.DG-0001(Q)	CTO	Q				100143		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW34	**12 SVCE WTR DSL GEN JKT WTR CLR 1A INLET CHK VLV**									
205242-3	*Service Water Nuclear Area*	*H7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0001(Q)	CTO	Q				100143		

11SW36	**11 SVCE WTR DSL GEN JKT WTR CLR B INLET CHK VLV**									
205242-3	*Service Water Nuclear Area*	*G7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

S1.OP-ST.DG-0002(Q)	CTO	Q				100144		

12SW36	**12 SVCE WTR NUC HDR TO DSL GEN JKT WTR CLR 1B CHK VLV**									
205242-3	*Service Water Nuclear Area*	*G7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

S1.OP-ST.DG-0002(Q)	CTO	Q				100144		

11SW38	**11 SVCE WTR DSL GEN JKT WTR CLR 1C INLET CHK VLV**									
205242-3	*Service Water Nuclear Area*	*F7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

S1 OP-ST.DG-0003(Q)	CTO	Q				100146		

12SW38	**12 SVCE WTR DSL GEN JKT WTR CLR 1C INLET CHK VLV**									
205242-3	*Service Water Nuclear Area*	*F7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

S1 OP-ST.DG-0003(Q)	CTO	Q				100146		

11SW39	**11 SVCE WTR DSL GEN JKT WTR CLR 1A INLET AIR OPRD BALL VLV**									
205242-3	*Service Water Nuclear Area*	*H8*	*3*	B	*BALL*	*AIR*	*6*	*C*	*O*	*Active*

S1.OP-ST.DG-0001(Q)	FSTO	Q				100143		
S1.OP-ST.DG-0001(Q)	STO	Q				100143		

12SW39	**12 SVCE WTR DSL GEN JKT WTR CLR 1B INLET AIR OPRD BALL VLV**									
205242-3	*Service Water Nuclear Area*	*G8*	*3*	B	*BALL*	*AIR*	*6*	*C*	*O*	*Active*

S1.OP-ST.DG-0002(Q)	FSTO	Q				100144		
S1.OP-ST.DG-0002(Q)	STO	Q				100144		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SW39	**13 SVCE WTR DSL GEN JKT WTR CLR 1C INLET AIR OPRD BALL VLV**									
205242-3	*Service Water Nuclear Area*	*F8*	*3*	B	*BALL*	*AIR*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0003(Q)	FSTO	Q				100146		
S1.OP-ST.DG-0003(Q)	STO	Q				100146		

11SW44	**11 SVCE WTR DSL GEN LUBE OIL CLR 1A OUTLET CHK VLV**									
205242-3	*Service Water Nuclear Area*	*E9*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0001(Q)	CTO	Q				100143		

12SW44	**12 SVCE WTR DSL GEN LUBE OIL CLR 1B OUTLET CHK VLV**									
205242-3	*Service Water Nuclear Area*	*D9*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0002(Q)	CTO	Q				100144		

13SW44	**13 SVCE WTR DSL GEN LUBE OIL CLR 1C OUTLET CHK VLV**									
205242-3	*Service Water Nuclear Area*	*C9*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.DG-0003(Q)	CTO	Q				100146		

11SW47	**11 SVCE WTR DSL GEN LUBE OIL CLR 1A OUTLET CHK VLV**									
205242-3	*Service Water Nuclear Area*	*E10*	*3*	C	*DCK*	*SELF*	*8*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-29		204114	TP-5	Disassembly & Inspection Method
S1 OP-ST.DG-0001(Q)	PS	Q				100143		

12SW47	**12 SVCE WTR DSL GEN LUBE OIL CLR 1A OUTLET CHK VLV**									
205242-3	*Service Water Nuclear Area*	*D10*	*3*	C	*DCK*	*SELF*	*8*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-29		204115	TP-5	Disassembly & Inspection Method
S1 OP-ST.DG-0001(Q)	PS	Q				100143		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW51	**11 SVCE WTR NUC HDR TO CONT FAN COIL UNIT INLET HDR CHK VLV**									
205242-6	*Service Water Nuclear Area*	*H1*	*3*	C	*DCK*	*SELF*	*16*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC MD-PM.ZZ-0123(Q)	CTC	SAM		RJ-31		202870	TP-5	Disassembly & Inspection Method
S1.OP-ST.SW-0010(Q)	CTO	Q				101213		
12SW51	**12 SVCE WTR CHL COND INLET HDR TO CONT FAN COIL UNIT HDR CKVL**							
205242-5	*Service Water Nuclear Area*	*G3*	*3*	C	*DCK*	*SELF*	*16*	*O*	*O/C*	*Active*
SC MD-PM.ZZ-0123(Q)	CTC	SAM		RJ-31		202869	TP-5	Disassembly & Inspection Method
S1.OP-ST SW-0010(Q)	CTO	Q				101213		
11SW53	**11 SVCE WTR FAN COIL UNITS COMMON INLET HDRCHK VLV**							
205242-6	*Service Water Nuclear Area*	*E1*	*3*	C	*DCK*	*SELF*	*10*	*O*	*O/C*	*Active*
SC.RA-IS.ZZ-0007(Q)	CTC	Q				290305		
S1.OP-ST.SW-0010(Q)	CTO	Q				101213		
12SW53	**12 SVCE WTR FAN COIL UNITS COMMON INLET HDR CHK VLV**							
205242-6	*Service Water Nuclear Area*	*D1*	*3*	C	*DCK*	*SELF*	*10*	*O*	*O/C*	*Active*
SC.RA-IS.ZZ-0007(Q)	CTC	Q				290306		
S1.OP-ST.SW-0010(Q)	CTO	Q				101213		
11SW57	**11 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD GLB VLV**							
205242-6	*Service Water Nuclear Area*	*H2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
12SW57	**12 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD GLB VLV**							
205242-6	*Service Water Nuclear Area*	*F2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SW57	**13 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD GLB VLV**									
205242-6	*Service Water Nuclear Area*	*E2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*
14SW57	**14 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD GLB VLV**									
205242-6	*Service Water Nuclear Area*	*C2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*
15SW57	**15 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD GLB VLV**									
205242-6	*Service Water Nuclear Area*	*B2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*
11SW58	**11 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*H3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*
12SW58	**12 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*F3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SW58	**13 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*E3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		

14SW58	**14 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*C3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.SW-0010(Q)	STC	Q				101213		

15SW58	**15 SVCE WTR CONT FAN COIL UNIT INLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*B3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.SW-0010(Q)	STC	Q				101213		

11SW65	**11 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*H7*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1 OP-ST.SW-0010(Q)	STO	Q				101213		

12SW65	**12 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*F7*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1.OP-ST.SW-0010(Q)	STO	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SW65	**13 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*E7*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1.OP-ST.SW-0010(Q)	STO	Q				101213		
14SW65	**14 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**							
205242-6	*Service Water Nuclear Area*	*C7*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1.OP-ST.SW-0010(Q)	STO	Q				101213		
15SW65	**15 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**							
205242-6	*Service Water Nuclear Area*	*B7*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1 OP-ST.SW-0010(Q)	STO	Q				101213		
11SW72	**11 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**							
205242-6	*Service Water Nuclear Area*	*H7*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*
S1 OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.SW-0010(Q)	STC	Q				101213		
12SW72	**12 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**							
205242-6	*Service Water Nuclear Area*	*F7*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
13SW72	**13 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*E7*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		

14SW72	**14 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*C7*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		

15SW72	**15 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD BTFL VLV**									
205242-6	*Service Water Nuclear Area*	*B7*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		

11SW77	**11 SVCE WTR FAN COIL UNITS COMMON OUTLET HDR CHK VLV**									
205242-6	*Service Water Nuclear Area*	*E9*	*3*	C	*DCK*	*SELF*	*10*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0010(Q)	CTO	Q				101213		

12SW77	**12 SVCE WTR FAN COIL UNITS COMMON OUTLET HDR CHK VLV**									
205242-6	*Service Water Nuclear Area*	*D9*	*3*	C	*DCK*	*SELF*	*10*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0010(Q)	CTO	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW79	**11 SVCE WTR COND CIRC WTR DISCH HDR CHK VLV**									
205242-3	*Service Water Nuclear Area*	*C11*	*3*	C	*DCK*	*SELF*	*24*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PM.ZZ-0123Q)	CTO	RF		RJ-32		203460	TP-5	Disassembly & Inspection Method
S1.OP-ST.SW-0009(Q)	PS	Q				101020		
12SW79	**12 SVCE WTR COND CIRC WTR DISC HDR CHK VLV**							
205242-3	*Service Water Nuclear Area*	*C11*	*3*	C	*DCK*	*SELF*	*24*	*O*	*O*	*Active*
SC.MD-PM.ZZ-0123Q)	CTO	RF		RJ-32		203461	TP-5	Disassembly & Inspection Method
S1 OP-ST.SW-0009(Q)	PS	Q				101020		
11SW92	**11 SVCE WTR CHL COND INLET AIR OPRD GLB VLV**							
205242-5	*Service Water Nuclear Area*	*F4*	*3*	B	*GB*	*AIR*	*4*	*C*	*O*	*Active*
S1.OP-ST.SW-0009(Q)	FSTO	Q				101020		
S1.OP-ST.SW-0009(Q)	STO	Q				101020		
12SW92	**12 SVCE WTR CHL COND INLET AIR OPRD GLB VLV**							
205242-5	*Service Water Nuclear Area*	*D4*	*3*	B	*GB*	*AIR*	*4*	*C*	*O*	*Active*
S1.OP-ST.SW-0009(Q)	FSTO	Q				101020		
S1 OP-ST.SW-0009(Q)	STO	Q				101020		
13SW92	**13 SVCE WTR CHILLER CONDENSER INLET AIR OPRD GLB VLV**							
205242-5	*Service Water Nuclear Area*	*C4*	*3*	B	*GB*	*AIR*	*4*	*C*	*O*	*Active*
S1 OP-ST.SW-0009(Q)	FSTO	Q				101020		
S1 OP-ST.SW-0009(Q)	STO	Q				101020		
11SW99	**11 SVCE WTR CHL COND RECIRC PMP DISCH CHK VLV**							
205242-5	*Service Water Nuclear Area*	*E6*	*3*	C	*CK*	*SELF*	*4*	*O/C*	*C*	*Active*
S1 OP-ST.SW-0009(Q)	CTC	Q				101020		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW99	**12 SVCE WTR CHL COND RECIRC PMP DISCH CHK VLV**									
205242-5	*Service Water Nuclear Area*	*D6*	*3*	C	*CK*	*SELF*	*4*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0009(Q)	CTC	Q				101020		
13SW99	**13 SVCE WTR CHL COND RECIRC PMP DISCH CKVL**							
205242-5	*Service Water Nuclear Area*	*B6*	*3*	C	*CK*	*SELF*	*4*	*O/C*	*C*	*Active*
S1.OP-ST.SW-0009(Q)	CTC	Q				101020		
11SW122	**11 SVCE WTR CMPNT CLG HT EXCHG INLET AIR OPRD BTFL VLV**							
205242-3	*Service Water Nuclear Area*	*B3*	*3*	B	*BFY*	*AIR*	*20*	*M*	*O/C*	*Active*
S1.OP-ST.SW-0008(Q)	FSTC	Q				101019		
11SW129	**11 SVCE WTR CMPNT CLG PMP RM CLR INLET AIR OPRD GLB VLV**							
205242-3	*Service Water Nuclear Area*	*C4*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*
S1 OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1 OP-ST.SW-0014(Q)	STO	Q				100303		
12SW129	**12 SVCE WTR CMPNT CLG PMP RM CLR INLET AIR OPRD GLB VLV**							
205242-4	*Service Water Nuclear Area*	*G6*	*3*	B	*GB*	*AIR*	*2*	*O/C*	*O*	*Active*
S1.OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1 OP-ST.SW-0014(Q)	STO	Q				100303		
1SW137	**1 SVCE WTR AUX FDWTR PMP RM CLR INLET AIR OPRD GLB VLV**							
205242-3	*Service Water Nuclear Area*	*C4*	*3*	B	*GB*	*AIR*	*2*	*O/C*	*O*	*Active*
S1.OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1.OP-ST.SW-0014(Q)	STO	Q				100303		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW145	**11 SVCE WTR CONT SPRAY PMP RM CLR INLET AIR OPRD GLB VLV**									
205242-3	*Service Water Nuclear Area*	*D3*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1.OP-ST.SW-0014(Q)	STO	Q				100303		

12SW145	**12 SVCE WTR CONT SPRAY PMP RM CLR INLET AIR OPRD GLB VLV**									
205242-4	*Service Water Nuclear Area*	*B7*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

S1.OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1.OP-ST.SW-0014(Q)	STO	Q				100303		

11SW153	**11 SVCE WTR RHR PMP RM CLR INLET AIR OPRD GLB VLV**									
205242-3	*Service Water Nuclear Area*	*G4*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

S1 OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1.OP-ST.SW-0014(Q)	STO	Q				100303		

12SW153	**12 SVCE WTR RHR PMP RM CLR INLET AIR OPRD GLB VLV**									
205242-4	*Service Water Nuclear Area*	*F6*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

S1 OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1 OP-ST.SW-0014(Q)	STO	Q				100303		

11SW161	**11 SERVICE WATER COOLER HEADER TO AUX FEEDWATER STOP BUTTERFLY VALVE**									
205242-3	*Service Water Nuclear Area*	*C4*	*3*	B	*BFY*	*MAN*	*8*	*C*	*O/C*	*Active*

S1.OP-ST.AF-0004(Q)	FSO	Q				100717		

12SW161	**11 SERVICE WATER COOLER HEADER TO AUX FEEDWATER STOP BUTTERFLY VALVE**									
205242-4	*Service Water Nuclear Area*	*G10*	*3*	B	*BFY*	*MAN*	*8*	*C*	*O/C*	*Active*

S1.OP-ST.AF-0004(Q)	FSO	Q				100717		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW163	**1 SVCE WTR SAFTY INJ PMP LUBE OIL CLR INLET AIR OPRD GLB VLV**									
205242-3	*Service Water Nuclear Area*	*G4*	*3*	B	*GB*	*AIR*	*1.5*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0002(Q)	FSTO	Q				100710		
S1 OP-ST.SJ-0002(Q)	STO	Q				100710		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW169	**1 SVCE WTR SAF INJ PMP LUBE OIL CLR NO 11 INLET AIR OPRD GLB VLV**									
205242-4	*Service Water Nuclear Area*	*C7*	*3*	B	*GB*	*AIR*	*1.5*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SJ-0001(Q)	FSTO	Q				100709		
S1.OP-ST.SJ-0001(Q)	STO	Q				100709		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW175	**1 SVCE WTR SAF INJ PMP RM CLR INLET AIR OPRD GLB VLV**									
205242-4	*Service Water Nuclear Area*	*C7*	*3*	B	*GB*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1.OP-ST.SW-0014(Q)	STO	Q				100303		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW185	**1 SVCE WTR CHG PMP CLR NO 11 INLET AIR OPRD GLB VLV**									
205242-4	*Service Water Nuclear Area*	*D7*	*3*	B	*GB*	*AIR*	*1.5*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.CVC-0003(Q)	FSTO	Q				100702		
S1 OP-ST.CVC-0003(Q)	STO	Q				100702		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW191	**1 SVCE WTR CHG PMP RM CLR INLET AIR OPRD GLB VLV**									
205242-4	*Service Water Nuclear Area*	*D7*	*3*	B	*GB*	*AIR*	*2*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1 OP-ST.SW-0014(Q)	STO	Q				100303		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW199	**1 SVCE WTR CHARGING PMP NO 12 CLR INLET AIR OPRD GLB VLV**									
205242-3	*Service Water Nuclear Area*	*E4*	*3*	B	*GB*	*AIR*	*1.5*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CVC-0004(Q	FSTO	Q				100703		
S1.OP-ST.CVC-0004(Q	STO	Q				100703		

1SW205	**1 SVCE WTR CHG PMP RM CLR NO 12 INLET AIR OPRD GLB VLV**									
205242-3	*Service Water Nuclear Area*	*E4*	*3*	B	*GB*	*AIR*	*2*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1.OP-ST.SW-0014(Q)	STO	Q				100303		

1SW213	**1 SVCE WTR CHG PMP RM CLR NO 13 INLET AIR OPRD GLB VLV**									
205242-4	*Service Water Nuclear Area*	*B7*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0014(Q)	FSTO	Q				100303		
S1.OP-ST.SW-0014(Q)	STO	Q				100303		

11SW223	**11 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD GLB VLV**									
205242-6	*Service Water Nuclear Area*	*H9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		

12SW223	**12 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPR GLB VLV**									
205242-6	*Service Water Nuclear Area*	*F9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0010(Q)	FSTC	Q				101213		

13SW223	**13 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD GLB VLV**									
205242-6	*Service Water Nuclear Area*	*E9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
14SW223	**14 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD GLB VLV**									
205242-6	*Service Water Nuclear Area*	*C9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0010(Q)	FSTC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
15SW223	**15 SVCE WTR CONT FAN COIL UNIT OUTLET AIR OPRD GLB VLV**									
205242-6	*Service Water Nuclear Area*	*B9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW308	**1 SVCE WTR RIVER DISCH OUTLET AIR OPRD BALL VLV**									
205242-1	*Service Water Nuclear Area*	*A6*	*3*	B	*BALL*	*AIR*	*8*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
								No inservice testing required for this component.

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW311	**1 SVCE WTR RIVER DISCH AIR OPR BALL VLV**									
205242-2	*Service Water Nuclear Area*	*H4*	*3*	B	*BALL*	*AIR*	*8*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
								No inservice testing required for this component.

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW376	**12 SVCE WTR CMPNT CLG PL HT EXCH B INLET STOP AIR OPRD BTFL VLV**									
205242-4	*Service Water Nuclear Area*	*H6*	*3*	B	*BFY*	*AIR*	*14*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0008(Q)	FSTC	Q				101019		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW380	**12 SVCE WTR CMPNT CLG PL HT EXCH A INLET STOP AIR OPRD BTFL VLV**									
205242-4	*Service Water Nuclear Area*	*H4*	*3*	B	*BFY*	*AIR*	*14*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0008(Q)	FSTC	Q				101019		
S1.OP-ST.RPI-0001(Q)	PIT	2YR				100298		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW532	**11 SVCE WTR CONTAINMENT FAN COIL UNIT NUCLEAR HDR INLET CHECK VLV**									
205242-6	*Service Water Nuclear Area*	*H1*	*3*	C	*DCK*	*SELF*	*16*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PM.ZZ-0123(Q)	CTC	SAM		RJ-31		205763	TP-5	Disassembly & Inspection Method. DCP 1EC-3668
S1.OP-ST.SW-0010(Q)	CTO	Q				101213		
12SW532	**12 SVCE WTR NUCLEAR HDR TO REACTOR CONTAINMENT CHECK VLV**							
205242-5	*Service Water Nuclear Area*	*G3*	*3*	C	*DCK*	*SELF*	*16*	*O*	*O/C*	*Active*
SC.MD-PM.ZZ-0123(Q)	CTC	SAM		RJ-31		205214	TP-5	Disassembly & Inspection Method. DCP 1EC-3668
S1 OP-ST.SW-0010(Q)	CTO	Q				101213		
11SW534	**11 SERVICE WATER ACCUMULATOR VESSEL DISCHARGE ISOLATION VLV**							
205242-7	*Service Water Nuclear Area*	*F9*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O/C*	*Active*
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		
S1 OP-ST.SW-0010(Q)	STO	Q				101213		
12SW534	**12 SERVICE WATER ACCUMULATOR VESSEL DISCHARGE ISOLATION VLV**							
205242-7	*Service Water Nuclear Area*	*B9*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O/C*	*Active*
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1 OP-ST.SW-0010(Q)	STC	Q				101213		
S1 OP-ST.SW-0010(Q)	STO	Q				101213		
11SW535	**11 SERVICE WATER ACCUMULATOR VESSEL DISCHARGE ISOLATION VLV**							
205242-7	*Service Water Nuclear Area*	*F9*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O/C*	*Active*
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		
S1 OP-ST.SW-0010(Q)	STO	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW535	**12 SERVICE WATER ACCUMULATOR VESSEL DISCHARGE ISOLATION VLV**									
205242-7	*Service Water Nuclear Area*	*B9*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	FSTO	Q				101213		
S1.OP-ST.SW-0010(Q)	STC	Q				101213		
S1.OP-ST.SW-0010(Q)	STO	Q				101213		

11SW536	**11 NUCLEAR SUPPLY HEADER COLUMN SEPARATION PROTECTION CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*F8*	*3*	C	*DCK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	CTC	Q				101213		
SC.MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-33		205216		Disassembly & Inspection Method. DCP 1EC-3668

12SW536	**12 NUCLEAR SUPPLY HEADER COLUMN SEPARATION PROTECTION CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*C8*	*3*	C	*DCK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0010(Q)	CTC	Q				101213		
SC.MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-33		205215		Disassembly & Inspection Method. DCP 1EC-3668

11SW596	**11 SERVICE WATER ACCUMULATOR VESSEL WATER FILL CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*G5*	*3*	C	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0015(Q)	CTC	Q				101213		

12SW596	**12 SERVICE WATER ACCUMULATOR VESSEL WATER FILL CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*C5*	*3*	C	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0015(Q)	CTC	Q				101213		

11SW597	**11 SERVICE WATER ACCUMULATOR VESSEL WATER FILL CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*G5*	*3*	C	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.SW-0015(Q)	CTC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW597	**12 SERVICE WATER ACCUMULATOR VESSEL WATER FILL CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*C5*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0015(Q)	CTC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW626	**11 SVCE WTR ACCUMULATOR VESSEL RELIEF VALVE**									
205242-7	*Service Water*	*H2*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3668, see PMCR 970601180

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1SW628	**12 SVCE WTR ACCUMULATOR VESSEL RELIEF VALVE**									
205242-7	*Service Water*	*D2*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3668, see PMCR 970528086

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW640	**11 SERVICE WATER ACCUMULATOR VESSEL NITROGEN FILL CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*H4*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0015(Q)	CTC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW640	**12 SERVICE WATER ACCUMULATOR VESSEL NITROGEN FILL CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*D4*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0015(Q)	CTC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11SW641	**11 SERVICE WATER ACCUMULATOR VESSEL NITROGEN FILL CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*H4*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0015(Q)	CTC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
12SW641	**12 SERVICE WATER ACCUMULATOR VESSEL NITROGEN FILL CHECK VLV**									
205242-7	*Service Water Nuclear Area*	*D4*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.SW-0015(Q)	CTC	Q				101213		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1VC1	**1 CONTMT VENT PURGE SUPPLY OUTBOARD AIR OPRD VLV**									
205238-2	*Reactor Containment - Ventilation*	*C5*	*2*	*A*	*BFY*	*AIR*	*36*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.CBV-0002(Q)	FSTC	CS	CS-44			100842		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290577		
S1.OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1 OP-ST.CBV-0002(Q)	STC	CS	CS-44			100842		

1VC2	**1 CONTMT VENT PURGE SUPPLY INBOARD AIR OPRD VLV**									
205238-2	*Reactor Containment - Ventilation*	*C3*	*2*	*A*	*BFY*	*AIR*	*36*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0002(Q)	FSTC	CS	CS-45			100842		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290578		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0002(Q)	STC	CS	CS-45			100842		

1VC3	**1 CONTMT VENT PURGE EXHAUST INBOARD AIR OPRD VLV**									
205238-2	*Reactor Containment - Ventilation*	*E3*	*2*	*A*	*BFY*	*AIR*	*36*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0002(Q)	FSTC	CS	CS-45			100842		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290579		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0002(Q)	STC	CS	CS-45			100842		

1VC4	**1 CONTMT VENT PURGE EXHAUST OUTBOARD AIR OPRD VLV**									
205238-2	*Reactor Containment - Ventilation*	*D5*	*2*	*A*	*BFY*	*AIR*	*36*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0002(Q)	FSTC	CS	CS-44			100842		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290580		
S1 OP-ST.RPI-0003(Q)	PIT	2YR				100301		
S1.OP-ST.CBV-0002(Q)	STC	CS	CS-44			100842		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1VC5	**1 CONTMT VENT PRESS-VACUUM RELIEF OUTBOARD AIR OPRD VLV**									
205238-2	*Reactor Containment - Ventilation*	*C5*	*2*	A	*BFY*	*AIR*	*10*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290581		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

1VC6	**1 CONTMT VENT PRESS-VACUUM RELIEF INBOARD AIR OPRD VLV**									
205238-2	*Reactor Containment - Ventilation*	*C3*	*2*	A	*BFY*	*AIR*	*10*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290582		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

1VC7	**1 CONTMT VENT RAD MON SYS INSIDE CONTMT OUTLET SAMPLE INBOARD AIR OPRD VLV**									
205238-1	*Reactor Containment - Ventilation*	*H6*	*2*	A	*GB*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18M0				290583		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1 OP-ST.CBV-0001(Q)	STC	Q				100755		

1VC8	**1 CONTMT VENT RAD MON SYS OUT CONTMT OUTLET SAMPLE AIR OPRD VLV**									
205238-1	*Reactor Containment - Ventilation*	*H5*	*2*	A	*GB*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1 RA-IS.ZZ-0001(Q)	LJ	18MO				290584		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.CBV-0001(Q)	STC	Q				100755		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1VC9	**1 CONTMT VENT RAD MON SYS INSIDE CONTMT OUTLET SAMPLE AIR OPRD VLV**									
205238-1	*Reactor Containment - Ventilation*	*H6*	*2*	A	*GB*	*AIR*	*1*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18M0				290585		
S1 OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

1VC10	**1 CONTMT VENT RAD MON SYS OUT CONTMT OUTLET SAMPLE AIR OPRD VLV**									
205238-1	*Reactor Containment - Ventilation*	*H5*	*2*	A	*GB*	*AIR*	*1*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290586		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

1VC11	**1 CONTMT VENT RAD MON SYS INSIDE CONTMT INLET SAMPLE AIR OPRD VLV**									
205238-1	*Reactor Containment - Ventilation*	*G6*	*2*	A	*GB*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290587		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

1VC12	**1 CONTMT VENT RAD MON SYS OUTSIDE CONTMT INLET SAMPLE AIR OPRD VLV**									
205238-1	*Reactor Containment - Ventilation*	*G5*	*2*	A	*GB*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18M0				290588		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.CBV-0001(Q)	STC	Q				100755		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1VC13	**1 CONTMT VENT RAD MON SYS INSIDE CONTMT INLET SAMPLE AIR OPRD VLV**									
205238-1	*Reactor Containment - Ventilation*	*F6*	*2*	*A*	*GB*	*AIR*	*1*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290591		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

1VC14	**1 CONTMT VENT RAD MON SYS OUTSIDE CONTMT INLET SAMPLE AIR OPRD VLV**									
205238-1	*Reactor Containment - Ventilation*	*F5*	*2*	*A*	*GB*	*AIR*	*1*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290592		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

11VC17	**11 POST ACC SAMP PEN 36 OUTBD AIR SAMPLE SPLY AIR OPRD GATE VLV**									
205244-3	*Sampling*	*G7*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290593		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.CBV-0001(Q)	STC	Q				100755		

12VC17	**12 POST ACC SAMP PEN 30 OUTBD AIR SAMPLE SPLY AIR OPRD GATE VLV**									
205244-3	*Sampling*	*E7*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290589		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11VC18	**11 POST ACC SAMP PEN 36 OUTBD AIR SAMPLE RETURN AIR OPRD GATE VLV**									
205244-3	*Sampling*	*F7*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290595		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

12VC18	**12 POST ACC SAMP PEN 30 OUTBD AIR SAMPLE RETURN AIR OPRD GATE VLV**									
205244-3	*Sampling*	*E7*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290597		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.CBV-0001(Q)	STC	Q				100755		

11VC19	**11 POST ACC SAMP PEN 36 INBD AIR SAMPLE SPLY AIR OPRD GATE VLV**									
205244-3	*Sampling*	*G8*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290594		
S1 OP-ST RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

12VC19	**12 POST ACC SAMP PEN 30 INBD AIR SAMPLE SPLY AIR OPRD GATE VLV**									
205244-3	*Sampling*	*E8*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290590		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
11VC20	**11 POST ACC SAMP PEN 36 INBD AIR SAMPLE RETURN AIR OPRD GATE VLV**									
205244-3	*Sampling*	*F8*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290596		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

12VC20	**12 POST ACC SAMP PEN 30 INBD AIR SAMPLE RETURN AIR OPRD GATE VLV**									
205244-3	*Sampling*	*E8*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

S1.OP-ST.CBV-0001(Q)	FSTC	Q				100755		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290598		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.CBV-0001(Q)	STC	Q				100755		

1WL12	**1 RAD WST LQD REACT COOL DR PMP DISCH ISLN INBOARD AIR OPRD DIAPH VLV**									
205239-3	*Waste Disposal Liquid*	*C7*	*2*	*A*	*DIA*	*AIR*	*3*	*C*	*C*	*Active*

S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS ZZ-0001(Q)	LJ	18MO				290599		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1 OP-ST.ZZ-0003(Q)	STC	Q				100726		

1WL13	**1 RAD WST LQD RC DR PMP DISCH ISLN AIR OPRD DIAPH VALVE**									
205239-3	*Waste Disposal Liquid*	*C7*	*2*	*A*	*DIA*	*AIR*	*3*	*O*	*C*	*Active*

S1 OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1 RA-IS.ZZ-0001(Q)	LJ	18MO				290600		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.ZZ-0003(Q)	STC	Q				100726		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1WL16	**1 RAD WST LQD CONTMT SUMP PMP DISCH AIR OPRD VALVE**									
205239-3	*Waste Disposal Liquid*	*B7*	*2*	*A*	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290601		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		

1WL17	**1 RAD WST LQD CONTMT SUMP PMP DISCH AIR OPRD VLV**									
205239-3	*Waste Disposal Liquid*	*B8*	*2*	*A*	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290602		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		

1WL96	**1 RAD WST LQD RC DR TK TO GAS ANALYZER AIR OPRD DIAPH VALVE**									
205239-3	*Waste Disposal Liquid*	*F7*	*2*	*A*	*DIA*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18YR				290603		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1 OP-ST ZZ-0003(Q)	STC	Q				100726		

1WL97	**1 RAD WST LQD RC DR TK TO GAS ANALYZER CONT VLV**									
205239-3	*Waste Disposal Liquid*	*F8*	*2*	*A*	*DIA*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1 OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290604		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.ZZ-0003(Q)	STC	Q				100726		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1WL98	**1 RAD WST LQD RC DR TK TO VENT HDR INBOARD CONT VLV**									
205239-3	*Waste Disposal Liquid*	*F7*	*2*	*A*	*DIA*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290605		
S1.OP-ST.RPI-0002(Q)	PIT	2YR				100299		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1WL99	**1 RAD WST LQD RC DR TK TO VENT HDR CONT VLV**									
205239-3	*Waste Disposal Liquid*	*F9*	*2*	*A*	*DIA*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290606		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1 OP-ST.ZZ-0003(Q)	STC	Q				100726		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1WL108	**1 RAD WST LQD N2 VENT LINE OUTBOARD AIR OPRD DIAPH VALVE**									
205239-3	*Waste Disposal Liquid*	*G9*	*2*	*A*	*DIA*	*AIR*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290607		
S1.OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1WL190	**1 RAD WST LQD REFUEL WTR PURIF PMP DR TO ANULUS DIAPH VLV**									
205239-3	*Waste Disposal Liquid*	*F3*	*2*	*A*	*DIA*	*MAN*	*3*	*LC*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290557		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1WL191	**1 RAD WST LQD REFUEL CANAL DR TO REFUEL WTR PURIF PMP DIAPH VLV**									
205239-3	*Waste Disposal Liquid*	*E2*	*2*	*A*	*DIA*	*MAN*	*3*	*LC*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290555		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1WL475	CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE									AUGMENTED
205239-3	Waste Disposal Liquid	C7	N	C	RV	SELF	1	C	O	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3718
1WL476	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**							
205239-3	Waste Disposal Liquid	C7	2	A/C	RV	SELF	1	C	O/C	Active
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290600		DCP 1EC-3718
SC MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3718
1WL477	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**									AUGMENTED
205239-3	Waste Disposal Liquid	B7	N	C	RV	SELF	1	C	O	Active
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3718
1WL478	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**									
205239-3	Waste Disposal Liquid	B8	2	A/C	RV	SELF	1	C	O/C	Active
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				2900602		DCP 1EC-3718
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3718
1WR80	**1 REACT COOL PRIMARY WATER SUPPLY STOP AIR OPRD VLV**									
205201-1	Reactor Coolant	C10	2	A	DIA	AIR	3	O/C	C	Active
S1.OP-ST.ZZ-0003(Q)	FSTC	Q				100726		
S1 RA-IS.ZZ-0001(Q)	LJ	18MO				290608		
S1 OP-ST.RPI-0004(Q)	PIT	2YR				100302		
S1.OP-ST.ZZ-0003(Q)	STC	Q				100726		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
1WR81	1 REACT COOL PRIMARY WATER CHECK VLV									
205201-1	Reactor Coolant	C9	2	A/C	CK	SELF	3	O/C	O/C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S1.RA-IS.ZZ-0001(Q)	CTC	RF		RJ-34		290609		
S1.OP-ST.ZZ-0003(Q)	CTO	Q				100726	TP-5	Disassembly & Inspection Method
S1.RA-IS.ZZ-0001(Q)	LJ	18MO				290609		

1WR191	CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE									AUGMENTED
205201-1	Reactor Coolant	C8	N	C	RV	SELF	1	C	O	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 1EC-3718

TABLE 3-2

Salem Unit 2

VALVE TEST TABLE

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21AF4	**21 AUX FEEDWATER PUMP SUCTION CHECK VALVE**									
205336-1	*Auxiliary Feedwater*	*D1*	*3*	*C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0004(Q)	CTC	Q				100655		
S2.OP-ST.AF-0005(Q)	CTO	CS	CS-01			100820		
S2 OP-ST.AF-0001(Q)	PS	Q				100666		
22AF4	**22 AUX FDWTR PMP SPLY CKVL**							
205336-1	*Auxiliary Feedwater*	*D4*	*3*	*C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*
S2.OP-ST.AF-0004(Q)	CTC	Q				100655		
S2.OP-ST.AF-0005(Q)	CTO	CS	CS-01			100820		
S2.OP-ST.AF-0002(Q)	PS	Q				100667		
23AF4	**23 AUX FDWTR PMP SPLY CKVL**							
205336-1	*Auxiliary Feedwater*	*D7*	*3*	*C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*
S2.OP-ST.AF-0004(Q)	CTC	Q				100655		
S2.OP-ST.AF-0007(Q)	CTO	CS	CS-01			100376		
S2 OP-ST.AF-0003(Q)	PS	Q				100668		
21AF8	**21 AUX FDWTR PMP DISCH CKVL**							
205336-1	*Auxiliary Feedwater*	*E4*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*
S2 OP-ST.AF-0005(Q)	CTO	CS	CS-02			100820		
22AF8	**22 AUX FDWTR PMP DISCH CKVL**							
205336-1	*Auxiliary Feedwater*	*E6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*
S2 OP-ST.AF-0005(Q)	CTO	CS	CS-02			100820		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23AF8	**23 AUX FDWTR PMP DISCH CHECK VLV**									
205336-1	*Auxiliary Feedwater*	*E8*	*3*	C	*CK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0007(Q)	CTO	CS	CS-02			100376		
S2 OP-ST.AF-0003(Q)	PS	Q				100668		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21AF11	**21 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*G7*	*3*	B	*GB*	*AIR*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.AF-0004(Q)	STC	Q				100655		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22AF11	**22 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*G6*	*3*	B	*GB*	*AIR*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.AF-0004(Q)	STC	Q				100655		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23AF11	**23 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*E7*	*3*	B	*GB*	*AIR*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2 OP-ST.AF-0004(Q)	STC	Q				100655		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
24AF11	**24 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*F7*	*3*	B	*GB*	*AIR*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2 OP-ST RPI-0001(Q)	PIT	2YR				100208		
S2 OP-ST.AF-0004(Q)	STC	Q				100655		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21AF21	**21 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*H6*	*3*	B	*GB*	*AIR*	*4*	*C*	*M/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0004(Q)	FSTO	Q				100655		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2 OP-ST.AF-0004(Q)	STC	Q				100655		
S2 OP-ST.AF-0004(Q)	STO	Q				100655		

22AF21	**22 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*G6*	*3*	B	*GB*	*AIR*	*4*	*C*	*M/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2 OP-ST.AF-0004(Q)	FSTO	Q				100655		
S2 OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2 OP-ST.AF-0004(Q)	STC	Q				100655		
S2.OP-ST.AF-0004(Q)	STO	Q				100655		

23AF21	**23 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*F6*	*3*	B	*GB*	*AIR*	*4*	*C*	*M/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0004(Q)	FSTO	Q				100655		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.AF-0004(Q)	STC	Q				100655		
S2 OP-ST.AF-0004(Q)	STO	Q				100655		

24AF21	**24 AUX FDWTR STM GEN INLET AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*F4*	*3*	B	*GB*	*AIR*	*4*	*C*	*M/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0004(Q)	FSTO	Q				100655		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.AF-0004(Q)	STC	Q				100655		
S2.OP-ST.AF-0004(Q)	STO	Q				100655		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21AF23	**21 AUX FDWTR STM GEN INLET SCHK**									
205336-1	*Auxiliary Feedwater*	*H10*	*2*	C	*SCK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0006(Q)	CTC	Q				101151		
S2.OP-ST.AF-0005(Q)	CTO	CS	CS-03			100820		
22AF23	**22 AUX FDWTR STM GEN INLET SCHK**							
205336-1	*Auxiliary Feedwater*	*G10*	*2*	C	*SCK*	*SELF*	*4*	*C*	*O/C*	*Active*
S2.OP-ST.AF-0006(Q)	CTC	Q				101151		
S2.OP-ST.AF-0005(Q)	CTO	CS	CS-03			100820		
23AF23	**23 AUX FDWTR STM GEN INLET SCHK**							
205336-1	*Auxiliary Feedwater*	*F10*	*2*	C	*SCK*	*SELF*	*4*	*C*	*O/C*	*Active*
S2.OP-ST.AF-0006(Q)	CTC	Q				101151		
S2.OP-ST.AF-0005(Q)	CTO	CS	CS-03			100820		
24AF23	**24 AUX FDWTR STM GEN INLET SCHK**							
205336-1	*Auxiliary Feedwater*	*G10*	*2*	C	*SCK*	*SELF*	*4*	*C*	*O/C*	*Active*
S2.OP-ST.AF-0006(Q)	CTC	Q				101151		
S2.OP-ST.AF-0005(Q)	CTO	CS	CS-03			100820		
21AF40	**21 AUX FDWTR PMP DISCH AIR OPRD GLB VLV**							
205336-1	*Auxiliary Feedwater*	*D4*	*3*	B	*GB*	*AIR*	*2*	*O*	*O/C*	*Active*
S2.OP-ST.AF-0004(Q)	FSTO	Q				100655		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.AF-0004(Q)	STC	Q				100655		
S2.OP-ST.AF-0004(Q)	STO	Q				100655		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22AF40	**22 AUX FDWTR PMP DISCH AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*D6*	*3*	B	*GB*	*AIR*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2 OP-ST.AF-0004(Q)	FSTO	Q				100655		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.AF-0004(Q)	STC	Q				100655		
S2.OP-ST.AF-0004(Q)	STO	Q				100655		

21AF52	**21 AUX FDWTR PMP SUCT AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*E1*	*3*	B	*PL*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.AF-0004(Q)	STO	Q				100655		

22AF52	**22 AUX FDWTR PMP INLET AIR OPRD VLV**									
205336-1	*Auxiliary Feedwater*	*E4*	*3*	B	*PL*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.AF-0004(Q)	STO	Q				100655		

23AF52	**23 AUX FDWTR PMP SPLY AIR OPRD GLB VLV**									
205336-1	*Auxiliary Feedwater*	*E7*	*3*	B	*PL*	*AIR*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2 OP-ST.AF-0004(Q)	STO	Q				100655		

21AF53	**21 AUX FDWTR PMP SUCT CHECK VLV**									
205336-1	*Auxiliary Feedwater*	*D1*	*3*	C	*CK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC MD-PM.ZZ-0044(Q)	CTO	SAM		RJ-01		202875	TP-5	Disassembly & Inspection Method

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22AF53	**22 AUX FDWTR PMP SUCT CKVL**									
205336-1	*Auxiliary Feedwater*	*D4*	*3*	*C*	*CK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PM.ZZ-0044(Q)	CTO	SAM		RJ-01		202874	TP-5	Disassembly & Inspection Method

23AF53	**23 AUX FDWTR PMP SPLY CHECK VLV**									
205336-1	*Auxiliary Feedwater*	*E7*	*3*	*C*	*CK*	*SELF*	*8*	*C*	*O*	*Active*

SC.MD-PM.ZZ-0044(Q)	CTO	SAM		RJ-01		202873	TP-5	Disassembly & Inspection Method

2AF92	**Manual Valve Isolation for Spool Piece Connecting AF to SW**									
205336-1	*Auxiliary Feedwater*	*E1*	*3*	*B*	*GT*	*MAN*	*8*	*LC*	*O/C*	*Active*

S2.OP-ST.AF-0004(Q)	FSO	Q				100655		

21AF920	**21 AUX FDWTR STM GEN INLET CKVL**									
205336-1	*Auxiliary Feedwater*	*H6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*

S2.OP-ST.AF-0005(Q)	CTO	CS	CS-04			100820		

22AF920	**22 AUX FDWTR STM GEN INLET CKVL**									
205336-1	*Auxiliary Feedwater*	*G5*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*

S2.OP-ST.AF-0005(Q)	CTO	CS	CS-04			100820		

23AF920	**23 AUX FDWTR STM GEN INLET CKVL**									
205336-1	*Auxiliary Feedwater*	*F6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*

S2 OP-ST.AF-0005(Q)	CTO	CS	CS-04			100820		

24AF920	**24 AUX FDWTR STM GEN INLET CKVL**									
205336-1	*Auxiliary Feedwater*	*F5*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O*	*Active*

S2 OP-ST.AF-0005(Q)	CTO	CS	CS-04			100820		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21AF921	**21 AUX FDWTR STM GEN INLET CKVL**									
205336-1	*Auxiliary Feedwater*	*G6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2 OP-ST.AF-0005(Q)	CTC	CS	CS-05			100820		
S2.OP-ST.AF-0007(Q)	CTO	CS	CS-05			100376		

22AF921	**22 AUX FDWTR STM GEN INLET CKVL**									
205336-1	*Auxiliary Feedwater*	*G7*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2 OP-ST.AF-0005(Q)	CTC	CS	CS-05			100820		
S2 OP-ST.AF-0007(Q)	CTO	CS	CS-05			100376		

23AF921	**23 AUX FDWTR STM GEN INLET CKVL**									
205336-1	*Auxiliary Feedwater*	*E6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0005(Q)	CTC	CS	CS-05			100820		
S2 OP-ST.AF-0007(Q)	CTO	CS	CS-05			100376		

24AF921	**24 AUX FDWTR STM GEN INLET CKVL**									
205336-1	*Auxiliary Feedwater*	*F6*	*3*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2 OP-ST.AF-0005(Q)	CTC	CS	CS-05			100820		
S2.OP-ST.AF-0007(Q)	CTO	CS	CS-05			100376		

21AF923	**Manual Cross-Tie Between AF Feeds to Steam Generator 23 and Steam Generator 24**									
205336-1	*Auxiliary Feedwater*	*F5*	*3*	*B*	*GT*	*MAN*	*3*	*C*	*C*	*Passive*

No inservice testing required for this component.

22AF923	**Manual Cross-Tie Between AF Feeds to Steam Generator 23 and Steam Generator 24**									
205336-1	*Auxiliary Feedwater*	*F5*	*3*	*B*	*GT*	*MAN*	*3*	*C*	*C*	*Passive*

No inservice testing required for this component.

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21BF13	**21 STM GEN FEED & COND STM GEN INLET GATE MOV**									*AUGMENTED*
205302-3	*Steam Generator Feed and Condensate*	*D5*	*N*	B	*GT*	*MO*	*14*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-06			100844		

22BF13	**22 STM GEN FEED & COND STM GEN INLET GATE MOV**									*AUGMENTED*
205302-3	*Steam Generator Feed and Condensate*	*D7*	*N*	B	*GT*	*MO*	*14*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2 OP-ST.MS-0002(Q)	STC	CS	CS-06			100844		

23BF13	**23 STM GEN FEED & COND STM GEN INLET GATE MOV**									*AUGMENTED*
205302-3	*Steam Generator Feed and Condensate*	*D3*	*N*	B	*GT*	*MO*	*14*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-06			100844		

24BF13	**24 STM GEN FEED & COND STM GEN 24 REG VLV ISOL VLV**									*AUGMENTED*
205302-3	*Steam Generator Feed and Condensate*	*D9*	*N*	B	*GT*	*MO*	*14*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-06			100844		

21BF19	**21 STM GEN FEED & COND STM GEN INLET AIR OPRD GLB VLV**									*AUGMENTED*
205302-3	*Steam Generator Feed and Condensate*	*E4*	*N*	B	*GB*	*AIR*	*12*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2 OP-ST.MS-0002(Q)	FSTC	CS	CS-07			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-07			100844		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22BF19	**22 STM GEN FEED & COND STM GEN INLET AIR OPRD GLB VLV**									*AUGMENTED*
205302-3	*Steam Generator Feed and Condensate*	*E6*	*N*	B	*GB*	*AIR*	*12*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTC	CS	CS-07			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-07			100844		

23BF19	**23 STM GEN FEED & COND STM GEN INLET AIR OPRD GLB VLV**									*AUGMENTED*
205302-3	*Steam Generator Feed and Condensate*	*E1*	*N*	B	*GB*	*AIR*	*12*	*O*	*C*	*Active*

S2.OP-ST.MS-0002(Q)	FSTC	CS	CS-07			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-07			100844		

24BF19	**24 STM GEN FEED & COND STM GEN 24 CONT VLV**									*AUGMENTED*
205302-3	*Steam Generator Feed and Condensate*	*E8*	*N*	B	*GB*	*AIR*	*12*	*O*	*C*	*Active*

S2.OP-ST.MS-0002(Q)	FSTC	CS	CS-07			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2 OP-ST.MS-0002(Q)	STC	CS	CS-07			100844		

21BF22	**21 STM GEN FEED & COND STM GEN INLET STOP CHECK MOV**									
205302-3	*Steam Generator Feed and Condensate*	*F4*	*2*	B/C	*SCK*	*SELF*	*14*	*O*	*C*	*Active*

S2 OP-ST.MS-0002(Q)	CTC	CS	CS-08			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-08			100844		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22BF22	**22 STM GEN FEED & COND STM GEN INLET STOP CHECK MOV**									
205302-3	*Steam Generator Feed and Condensate*	*F6*	*2*	B/C	*SCK*	*MO*	*14*	*O*	*C*	*Active*
23BF22	**23 STM GEN FEED & COND STM GEN INLET STOP CHECK MOV**									
205302-3	*Steam Generator Feed and Condensate*	*F2*	*2*	B/C	*SCK*	*MO*	*14*	*O*	*C*	*Active*
24BF22	**24 STM GEN FEED & COND STM GEN 24 STOP CHECK VLV**									
205302-3	*Steam Generator Feed and Condensate*	*F9*	*2*	B/C	*SCK*	*MO*	*14*	*O*	*C*	*Active*
21BF40	**21 STM GEN FEED & COND STM GEN INLET CONT VLV BYP AIR OPRD GLB VLV**									*AUGMENTED*
205302-3	*Steam Generator Feed and Condensate*	*E4*	*N*	B	*GB*	*AIR*	*4*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	CTC	CS	CS-08			100844		
S2 OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-08			100844		
S2.OP-ST.MS-0002(Q)	CTC	CS	CS-08			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-08			100844		
S2.OP-ST.MS-0002(Q)	CTC	CS	CS-08			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-08			100844		
S2.OP-ST.MS-0002(Q)	FSTC	CS	CS-09			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2 OP-ST.MS-0002(Q)	STC	CS	CS-09			100844		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22BF40	22 STM GEN FEED & COND STM GEN INL CONT VLV BYP AIR OPRD GLB VLV									AUGMENTED
205302-3	Steam Generator Feed and Condensate	E6	N	B	GB	AIR	4	O/C	C	Active
23BF40	23 STM GEN FEED & COND STM GEN INLET CONT VLV BYP AIR OPRD GLB VLV									AUGMENTED
205302-3	Steam Generator Feed and Condensate	E2	N	B	GB	AIR	4	O/C	C	Active
24BF40	24 STM GEN FEED & COND STM GEN 24 CONT VLV BYPASS VLV									AUGMENTED
205302-3	Steam Generator Feed and Condensate	E8	N	B	GB	AIR	4	O/C	C	Active
21CA330	2 CONT AIR HDR 2A INLET AIR OPRD GLB VLV									
205347-1	No. 2 Unit - React. Cont. & Penetration Area	E3	2	A	GB	AIR	2	O	C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2 OP-ST.MS-0002(Q)	FSTC	CS	CS-09			100844		
S2 OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-09			100844		
S2 OP-ST.MS-0002(Q)	FSTC	CS	CS-09			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-09			100844		
S2.OP-ST.MS-0002(Q)	FSTC	CS	CS-09			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-09			100844		
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2 RA-IS.ZZ-0002(Q)	LJ	18MO				290700		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2 OP-ST.ZZ-0003(Q)	STC	Q				100665		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22CA330	**22 CONT AIR HDR 2B INLET AIR OPRD GLB VLV**									
205347-1	*No. 2 Unit - React. Cont. & Penetration Area*	*D3*	*2*	*A*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290702		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

21CA360	**21 CONT AIR HDR 2A CONTMT RETURN CHECK VLV**									
205347-3	*No. 2 Unit - React. Cont. & Penetration Area*	*C1*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-02		290701		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290701		

22CA360	**22 CONT AIR HDR 2B CONTMT RETURN CHECK VLV**									
205347-3	*No. 2 Unit - React. Cont. & Penetration Area*	*B1*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-02		290703		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290703		

2CA1714	**2 CONT AIR LOCK AIR SPLY TO SEALS ELEV 100 VLV**									
205347-1	*No. 2 Unit - React. Cont. & Penetration Area*	*H3*	*2*	*A*	*GT*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290704		

2CA1715	**2 CONT AIR LOCK AIR SPLY TO SEALS ELEV 130 VLV**									
205347-1	*No. 2 Unit - React. Cont. & Penetration Area*	*H4*	*2*	*A*	*GT*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290705		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CA1785	**CONTROL AIR ACCUMULATOR CHECK VALVE**									*AUGMENTED*
205347-3	*No. 2 Unit - React. Cont. & Penetration Area*	*H6*	*N*	*A/C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.RA-IS.PZR-0024(Q)	CTC	RF		RJ-03		101094		
SC.RA-IS.PZR-0024(Q)	LT	2YR				101094		

2CA1786	**CONTROL AIR ACCUMULATOR CHECK VALVE**									*AUGMENTED*
205347-3	*No. 2 Unit - React. Cont. & Penetration Area*	*H4*	*N*	*A/C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.RA-IS.PZR-0024(Q)	CTC	RF		RJ-03		101094		
SC.RA-IS.PZR-0024(Q)	LT	2YR				101094		

2CA1787	**CONTROL AIR ACCUMULATOR CHECK VALVE**									*AUGMENTED*
205347-3	*No. 2 Unit - React. Cont. & Penetration Area*	*G6*	*N*	*A/C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.RA-IS.PZR-0024(Q)	CTC	RF		RJ-03		101094		
SC.RA-IS.PZR-0024(Q)	LT	2YR				101094		

2CA1788	**CONTROL AIR ACCUMULATOR CHECK VALVE**									*AUGMENTED*
205347-3	*No. 2 Unit - React. Cont. & Penetration Area*	*G6*	*N*	*A/C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.RA-IS.PZR-0024(Q)	CTC	RF		RJ-03		101094		
SC.RA-IS.PZR-0024(Q)	LT	2YR				101094		

2CA2086	**21SW534 CONTROL AIR ACCUMULATOR CK VALVE**									*AUGMENTED*
205347-1	*Control Air*	*C8*	*N*	*C*	*CK*	*SELF*	*.5*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	CTC	Q				101214		
S2.RA-IS.SW-0001(Q)	LT	2YR				200278		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CA2091	**21SW535 CONTROL AIR ACCUMULATOR CK VALVE**									*AUGMENTED*
205347-1	*Control Air*	*C9*	*N*	C	*CK*	*SELF*	*.5*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	CTC	Q				101214		
S2.RA-IS.SW-0001(Q)	LT	2YR				200279		

2CA2093	**22SW534 CONTROL AIR ACCUMULATOR CK VALVE**									*AUGMENTED*
205347-1	*Control Air*	*E9*	*N*	C	*CK*	*SELF*	*.5*	*C*	*C*	*Active*

S2.OP-ST.SW-0010(Q)	CTC	Q				101214		
S2.RA-IS.SW-0001(Q)	LT	2YR				200280		

2CA2095	**22SW535 CONTROL AIR ACCUMULATOR CK VALVE**									*AUGMENTED*
205347-1	*Control Air*	*C6*	*N*	C	*CK*	*SELF*	*.5*	*C*	*C*	*Active*

S2.OP-ST.SW-0010(Q)	CTC	Q				101214		
S2.RA-IS.SW-0001(Q)	LT	2YR				200281		

21CC1	**21 CMPNT CLG PMP DISCH CHECK VALVE**									
205331-1	*Component Cooling*	*E5*	*3*	C	*CK*	*SELF*	*12*	*O*	*O/C*	*Active*

S2.OP-ST.CC-0001(Q)	CTC	Q				100673		
S2.OP-ST.CC-0001(Q)	CTO	Q				100673		

22CC1	**22 CMPNT CLG PMP DISCH CHECK VLV**									
205331-1	*Component Cooling*	*C5*	*3*	C	*CK*	*SELF*	*12*	*O*	*O/C*	*Active*

S2.OP-ST.CC-0002(Q)	CTC	Q				100674		
S2.OP-ST.CC-0002(Q)	CTO	Q				100674		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23CC1	**23 CMPNT CLG PMP DISCH CHECK VLV**									
205331-1	*Component Cooling*	*D5*	*3*	C	*CK*	*SELF*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CC-0003(Q)	CTC	Q				100675		
S2.OP-ST.CC-0003(Q)	CTO	Q				100675		
21CC3	**21 CMPNT CLG PMP DISCH HDR CRSVR TO HT EXCH GATE MOV**							
205331-1	*Component Cooling*	*D5*	*3*	B	*GT*	*MO*	*16*	*O*	*O/C*	*Active*
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		
22CC3	**22 CMPNT CLG PMP DISCH HDR CRSVR TO HT EXCH GATE MOV**							
205331-1	*Component Cooling*	*D5*	*3*	B	*GT*	*MO*	*16*	*O*	*O/C*	*Active*
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		
21CC16	**21 CMPNT CLG RHR HEAT EXCHANGER OUTLET GATE MOV**							
205331-1	*Component Cooling*	*F9*	*3*	B	*GT*	*MO*	*12*	*C*	*O/C*	*Active*
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		
S2.OP-ST.CC-0004(Q)	STO	Q				100660		
22CC16	**22 CMPNT CLG RESIDUAL HT EXCH OUTLET MOV**							
205331-1	*Component Cooling*	*A9*	*3*	B	*GT*	*MO*	*12*	*C*	*O/C*	*Active*
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		
S2.OP-ST.CC-0004(Q)	STO	Q				100660		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CC17	**2 CMPNT CLG PMP SUCT HDR GATE MOV**									
205331-1	*Component Cooling*	*D3*	*3*	B	*GT*	*MO*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		

2CC18	**2 CMPNT CLG PMP SUCTION HEADER ISOLATION GATE MOV**									
205331-1	*Component Cooling*	*C3*	*3*	B	*GT*	*MO*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		

2CC30	**2 CMPNT CLG 21 HT EXCH TO SPENT FUEL PIT HT EXCH GATE MOV**									
205331-1	*Component Cooling*	*C6*	*3*	B	*GT*	*MO*	*16*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		

2CC31	**2 CMPNT CLG TO SPENT FUEL PIT HEAT EXCHANGER GATE MOV**									
205331-1	*Component Cooling*	*C6*	*3*	B	*GT*	*MO*	*16*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		

2CC71	**2 CMPNT CLG LETDOWN HEAT EXCHANGER OUTLET BTFL VLV**									
205331-2	*Component Cooling*	*H5*	*3*	B	*BF*	*AO*	*6*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0007(Q)	FSTC	CS	CS-10			100456		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CVC-0007(Q)	STC	CS	CS-10			100456		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CC109	**COMPONENT COOLING EXCESS LETDOWN HEAT EXCHANGER INLET CHECK VALVE**									
205331-3	*Component Cooling*	*D1*	*2*	*C*	*CK*	*SELF*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CC-0004(Q)	CTO	Q				100660	TP-5	Disassembly & Inspection Method

2CC112	**COMP COOLING EXCESS LETDOWN HT EXCHNGR OUTLET SAFETY RELIEF VLV**									
205331-3	*Component Cooling*	*E2*	*3*	*C*	*RV*	*SELF*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				204868		

2CC113	**2 CMPNT CLG EXCESS LETDOWN HT EXCHG OUTLET AIR OPRD GLB VLV**									
205331-3	*Component Cooling*	*D2*	*2*	*A*	*GT*	*AIR*	*3*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CC-0004(Q)	FSTC	Q				100660		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290706		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		

2CC118	**2 CMPNT CLG REACTOR COOLANT PMP UPR & LWR BRG SPLY HDR GATE MOV**									
205331-3	*Component Cooling*	*C5*	*2*	*A*	*GT*	*MO*	*6*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290708		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CC-0005(Q)	STC	CS	CS-11			100450		

2CC119	**2 CMPNT CLG REACTOR COOLANT PMP BRG & SEAL SPLY HDR CKVL**									
205331-3	*Component Cooling*	*F5*	*2*	*A/C*	*CK*	*SELF*	*6*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-04		290709		
S2.OP-ST.CC-0004(Q)	CTO	Q				100660		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290709		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21CC128	21 CMPNT CLG REACTOR COOLANT PMP THERM BARR SPLY CHECK VLV									
205331-3	Component Cooling	F5	3	C	CK	SELF	1.5	O	C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CC-0005(Q)	CTC	RF		RJ-05		100450		

22CC128	22 CMPNT CLG REACTOR COOLANT PMP THERM BARR SPLY CKVL									
205331-3	Component Cooling	F9	3	C	CK	SELF	1.5	O	C	Active

S2.OP-ST.CC-0005(Q)	CTC	RF		RJ-05		100450		

23CC128	23 CMPNT CLG REACTOR COOLANT PMP THERM BARR SPLY CKVL									
205331-3	Component Cooling	C6	3	C	CK	SELF	1.5	O	C	Active

S2.OP-ST.CC-0005(Q)	CTC	RF		RJ-05		100450		

24CC128	24 CMPNT CLG REACTOR COOLANT PMP THERM BARR SPLY CHECK VLV									
205331-3	Component Cooling	C9	3	C	CK	SELF	1.5	O	C	Active

S2.OP-ST.CC-0005(Q)	CTC	RF		RJ-05		100450		

21CC129	21 CMPNT CLG REACTOR COOLANT PMP THERM BARR OUT SAF RLF VLV									
205331-3	Component Cooling	G7	3	C	RV	SELF	0.75	C	O/C	Active

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290084		

22CC129	22 CMPNT CLG REACTOR COOLANT PMP THERM BARR OUTLET SAF RLF VLV									
205331-3	Component Cooling	G10	3	C	RV	SELF	0.75	C	O/C	Active

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290086		

23CC129	23 CMPNT CLG REACTOR COOLANT PMP THERM BARRIER OUTLET SAF RLF VLV									
205331-3	Component Cooling	D7	3	C	RV	SELF	0.75	C	O/C	Active

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290088		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
24CC129	**24 CMPNT CLG REACTOR COOLANT PMP THERM BARRIER OUT SAF RLF VLV**									
205331-3	*Component Cooling*	*D10*	*3*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290090		
2CC131	**2 CMPNT CLG REACTOR COOLANT PMP THERM BARR RTN HDR GLB MOV**							
205331-3	*Component Cooling*	*C4*	*2*	*A*	*GT*	*MO*	*3*	*O* / *C* / *Active*
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290710		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CC-0005(Q)	STC	CS	CS-12			100450		
2CC135	**2 CMPNT CLG REACTOR COOL PMP UPR BRG OUT HDR SAF RLF VLV**							
205331-3	*Component Cooling*	*E3*	*3*	*C*	*RV*	*SELF*	*3*	*C* / *O/C* / *Active*
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290092		
2CC136	**2 CMPNT CLG REACTOR COOLANT PMP UPR & LWR BRG RET HDR GATE MOV**							
205331-3	*Component Cooling*	*C4*	*2*	*A*	*GT*	*MO*	*6*	*O* / *C* / *Active*
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290713		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CC-0005(Q)	STC	CS	CS-12			100450		
2CC147	**2 CMPNT CLG SURGE TK SAF RLF VLV**							
205331-1	*Component Cooling*	*F1*	*3*	*C*	*RV*	*SELF*	*3*	*C* / *O/C* / *Active*
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290096		
2CC148	**2 CMPNT CLG SURGE TK VACUUM BREAKER**							
205331-1	*Component Cooling*	*F2*	*3*	*C*	*RV*	*SELF*	*1*	*C* / *O/C* / *Active*
PTC-25.3 (Crane Proc.)	RV	10YR				102230		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CC149	**2 CMPNT CLG SURGE TK VENT AIR OPRD GLB VLV**									
205331-1	*Component Cooling*	*F2*	*3*	*B*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CC-0004(Q)	FSTC	Q				100660		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		

2CC186	**2 CMPNT CLG REACTOR COOL PMP LWR SEAL RET HDR MOV BYP CHECK VLV**									
205331-3	*Component Cooling*	*E3*	*2*	*A/C*	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-06		290714		
S2.OP-ST.CC-0005(Q)	CTO	RF		RJ-06		100450		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290714		

2CC187	**2 CMPNT CLG REACTOR COOLANT PMP RET LWR SEAL RTN HDR GLB MOV**									
205331-3	*Component Cooling*	*D4*	*2*	*A*	*GT*	*MO*	*6*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290715		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CC-0005(Q)	STC	CS	CS-12			100450		

2CC190	**2 CMPNT CLG REACTOR COOLANT PMP THERM BARR RET HDR GLB MOV**									
205331-3	*Component Cooling*	*D4*	*2*	*A*	*GT*	*MO*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290711		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CC-0005(Q)	STC	CS	CS-12			100450		

2CC195	**COMPONENT COOLING DEMINERALIZED WATER SUPPLY CHECK VALVE**									
205331-1	*Component Cooling*	*D1*	*3*	*C*	*CK*	*SELF*	*3*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.RA-IS.ZZ-0007(Q)	CTC	Q				290860		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CC208	**2 CMPNT CLG REACT COOL PMP THERM BARR RTN HDR MOV BYP CHECK VLV**									
205331-3	*Component Cooling*	*D4*	*2*	*A/C*	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-06		290712		
S2.OP-ST.CC-0005(Q)	CTO	RF		RJ-06		100450		
S2.RA-IS.ZZ-0002(Q)	LJ	2YR				290712		

2CC210	**COMPONENT COOLING PRIMARY WATER SUPPLY CHECK VALVE**									
205331-1	*Component Cooling*	*D1*	*3*	*C*	*CK*	*SELF*	*3*	*O/C*	*C*	*Active*

SC.RA-IS.ZZ-0007(Q)	CTC	Q				290859		

2CC215	**2 CMPNT CLG EXCESS LETDOWN HT EXCHG INLET AIR OPRD GLB VLV**									
205331-3	*Component Cooling*	*D1*	*2*	*A*	*PL*	*AIR*	*3*	*O*	*C*	*Active*

S2.OP-ST.CC-0004(Q)	FSTC	Q				100660		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290707		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CC-0004(Q)	STC	Q				100660		

2CC317	**2 CMPNT CLG CHGR SAF INJ PMP 21 HT EXCH SPLY CHECK VLV**									
205331-1	*Component Cooling*	*D7*	*3*	*C*	*CK*	*SELF*	*1*	*O*	*O*	*Active*

S2.OP-ST.CC-0004(Q)	CTO	Q				100660		

2CC320	**2 CMPNT CLG CHGR SAF INJ PMP 22 HT EXCH SPLY CHECK VLV**									
205331-1	*Component Cooling*	*G6*	*3*	*C*	*CK*	*SELF*	*1*	*O*	*O*	*Active*

S2.OP-ST.CC-0004(Q)	CTO	Q				100660		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21CH13	**21 CHL WTR PMP DISCH CKVL**									
205216-2	*Chilled Water*	*G9*	*3*	*C*	*CK*	*SELF*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CH-0001(Q)	CTC	Q				100689		
S2.OP-ST.CH-0001(Q)	CTO	Q				100689		

22CH13	**22 CHL WTR PMP DISCH CKVL**									
205216-2	*Chilled Water*	*G7*	*3*	*C*	*CK*	*SELF*	*4*	*O*	*O/C*	*Active*

S2.OP-ST.CH-0002(Q)	CTC	Q				100690		
S2.OP-ST.CH-0002(Q)	CTO	Q				100690		

2CH30	**2 CHL WTR SPLY TO S PEN AREA CLRS AIR OPRD GLB VLV**									
205216-2	*Chilled Water*	*H11*	*3*	*B*	*GB*	*AIR*	*3*	*O*	*C*	*Active*

S2.OP-ST.CH-0003(Q)	FSTC	Q				100448		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CH-0003(Q)	STC	Q				100448		

2CH55	**2 CHL WTR FRESH WTR SPLY HDR CKVL**									
205216-2	*Chilled Water*	*C3*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

S2.OP-ST.CH-0003(Q)	CTC	Q				100448		

2CH74	**2 CHL WTR AIR COND UNIT COIL OUTLET/RETURN LINE AIR OPRD 3WAY VLV**									
205216-2	*Chilled Water*	*D7*	*3*	*B*	*3WAY*	*AIR*	*3*	*O/C*	*O*	*Active*

S2.OP-ST.CH-0003(Q)	FSTO	Q				100448		
S2.OP-ST.CH-0003(Q)	STO	Q				100448		

2CH143	**2 CHL WTR EXPAN TK VENT SAF RLF VLV**									
205216-2	*Chilled Water*	*E3*	*3*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290098		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CH151	**2 CHL WTR SPLY TO S PEN AREA CLRS AIR OPRD GLB VLV**									
205216-2	*Chilled Water*	*H11*	*3*	B	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CH-0003(Q)	FSTC	Q				100448		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CH-0003(Q)	STC	Q				100448		

2CH168	**2 CHL WTR EMERG AIR COND COIL OUTLET AIR OPRD GLB VLV**									
205216-2	*Chilled Water*	*D4*	*3*	B	*GB*	*AIR*	*1.5*	*O*	*O*	*Passive*

No inservice testing required for this component

2CH216	**2 CHL WTR EMERG CONT AIR COMP SPLY LINE AIR OPRD GLB VLV**									
205216-3	*Chilled Water*	*E1*	*3*	B	*GB*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CH-0003(Q)	FSTO	Q				100448		
S2.OP-ST.CH-0003(Q)	STO	Q				100448		

2CH220	**2 CHL WTR EMERG CONT AIR COMP INTER CLR INLET VENT SAF RLF VLV**									
205216-3	*Chilled Water*	*E2*	*3*	C	*RV*	*SELF*	*0.75*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290100		

2CH232	**2 CHL WTR CHILLER CLR TO EMERG CONT AIR COMP CKVL**									
205216-3	*Chilled Water*	*E1*	*3*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CH-0003(Q)	CTO	Q				100448		

2CH252	**2 CHL WTR RAD MON ENCL SPLY LINE AIR OPRD GATE VLV**									
205216-2	*Chilled Water*	*H10*	*3*	B	*GB*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CH-0003(Q)	STC	Q				100448		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CH253	**2 CHL WTR RAD MON ENCL SPLY LINE AIR OPRD GATE VLV**									
205216-2	*Chilled Water*	*H10*	*3*	B	*GB*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CH-0003(Q)	STC	Q				100448		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CH260	**2 CHL WTR RAD MONITOR ENCL TO PMP SUCT HDR CKVL**									
205216-2	*Chilled Water*	*G10*	*3*	C	*CK*	*SELF*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CH-0003(Q)	CTC	Q				100448		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21CS2	**21 CONT SPRAY PMP DISCH MOV**									
205335-1	*Containment Spray*	*H6*	*2*	A	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290716		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CS-0003(Q)	STC	Q				100658		
S2.OP-ST.CS-0003(Q)	STO	Q				100658		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22CS2	**22 CONT SPRAY PMP DISCH MOV**									
205335-1	*Containment Spray*	*E6*	*2*	A	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290718		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CS-0003(Q)	STC	Q				100658		
S2.OP-ST.CS-0003(Q)	STO	Q				100658		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21CS4	**21 CONT SPRAY PMP DISCH INBD CHECK VLV**									
205335-1	*Containment Spray*	*H8*	*2*	C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CS-0005(Q)	CTO	RF		RJ-07		100636		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22CS4	**22 CONT SPRAY PMP DISCH INBD CHECK VLV**									
205335-1	*Containment Spray*	*E8*	*2*	*C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*
21CS5	**21 CONT SPRAY PMP DISCH SAF RLF VLV**									
205335-1	*Containment Spray*	*G9*	*2*	*N/A*	*RV*	*SELF*	*0.75*	*C*	*C*	*Passive*
22CS5	**22 CONT SPRAY PMP DISCH SAF RLF VLV**									
205335-1	*Containment Spray*	*E8*	*2*	*N/A*	*RV*	*SELF*	*0.75*	*C*	*C*	*Passive*
2CS12	**2 CONT SPRAY ADDITIVE TANK VAC BREAKER**									
205335-1	*Containment Spray*	*C5*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*
2CS13	**2 CONT SPRAY ADDITIVE TANK VAC BREAKER**									
205335-1	*Containment Spray*	*C5*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O*	*Active*
2CS14	**2 CONT SPRAY ADDITIVE TANK OUTLET MOV**									
205335-1	*Containment Spray*	*B7*	*3*	*B*	*GT*	*MO*	*3*	*O*	*O*	*Active*
2CS16	**2 CONT SPRAY ADDITIVE TK OUTLET MOV**									
205335-1	*Containment Spray*	*D7*	*3*	*B*	*GT*	*MO*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CS-0005(Q)	CTO	RF		RJ-07		100636		
								No inservice testing required for this component
								No inservice testing required for this component
SC.MD-PM.CS-0002(Q)	RV	10YR				204787		
SC.MD-PM.CS-0002(Q)	RV	10YR				204788		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CS-0003(Q)	STO	Q				100658		
S2 OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2 OP-ST CS-0003(Q)	STO	Q				100658		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CS17	**2 CONT SPRAY ADDITIVE TK OUTLET MOV**									
205335-1	*Containment Spray*	*D7*	*3*	B	*GT*	*MO*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CS-0003(Q)	STO	Q				100658		

21CS21	**21 CONT SPRAY EDUCTOR SUPPLY CHECK VLV**									
205335-1	*Containment Spray*	*G6*	*3*	C	*CK*	*SELF*	*3*	*C*	*O/C*	*Active*

S2.OP-ST.CS-0001(Q)	CTC	Q				100664		
S2.OP-ST.CS-0001(Q)	CTO	Q				100664		

22CS21	**22 CONT SPRAY EDUCTOR SPRAY ADDITIVE INLET CHECK VLV**									
205335-1	*Containment Spray*	*F6*	*3*	C	*CK*	*SELF*	*3*	*C*	*O/C*	*Active*

S2.OP-ST.CS-0002(Q)	CTC	Q				100672		
S2.OP-ST.CS-0002(Q)	CTO	Q				100672		

2CS26	**2 CONT SPRAY ADDITIVE TK SAF RLF VLV**									
205335-1	*Containment Spray*	*C4*	*3*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290106		

21CS36	**21 CONT SPRAY RHR STOP MOV**									
205335-1	*Containment Spray*	*H9*	*2*	B	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

S2.OP-ST.RPI-0003(Q)	PIT	2TR				100873		
S2.OP-ST.CS-0004(Q)	STC	CS	CS-13			100453		
S2.OP-ST.CS-0004(Q)	STO	CS	CS-13			100453		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22CS36	**22 CONT SPRAY RHR STOP MOV**									
205335-1	*Containment Spray*	*E9*	*2*	*B*	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CS-0004(Q)	STC	CS	CS-13			100453		
S2.OP-ST.CS-0004(Q)	STO	CS	CS-13			100453		

21CS48	**21 CONT SPRAY PMP DISCH OUTBD CHECK VLV**									
205335-1	*Containment Spray*	*H9*	*2*	*A/C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-08		290717		
S2.OP-ST.CS-0005(Q)	CTO	RF		RJ-08		100636		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290717		

22CS48	**22 CONT SPRAY PMP DISCH OUTBD CHECK VLV**									
205335-1	*Containment Spray*	*E9*	*2*	*A/C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-08		290719		
S2.OP-ST.CS-0005(Q)	CTO	RF		RJ-08		100636		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290719		

2CS900	**2 CONT SPRAY TEST CONN GLB VLV**									
205335-1	*Containment Spray*	*G9*	*2*	*A*	*GB*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290720		

2CS901	**2 CONT SPRAY TEST CONN GLB VLV**									
205335-1	*Containment Spray*	*F9*	*2*	*A*	*GB*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290721		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CS902	**2 CONT SPRAY TEST LINE FILL GLB VLV**									
205335-1	*Containment Spray*	*G8*	*2*	*A*	*GB*	*MAN*	*0.375*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290722		

2CS903	**2 CONT SPRAY TEST CONN GLB VLV**									
205335-1	*Containment Spray*	*F8*	*2*	*A*	*GB*	*MAN*	*0.375*	*C*	*C*	*Passive*

No inservice testing required for this component

2CV3	**2 CVC LTDOWN ORIFICE ISOLATION AIR OPRD GLB VLV**									
205328-2	*Chemical and Volume Control Operation*	*F8*	*2*	*A*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0006(Q)	FSTC	Q				100455		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290724		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CVC-0006(Q)	STC	Q				100455		

2CV4	**2 CVC REGEN HT EXCHG OUT TO LET DOWN HT EXCHG AIR OPRD GLB VLV**									
205328-2	*Chemical and Volume Control Operation*	*F9*	*2*	*A*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0006(Q)	FSTC	Q				100455		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290725		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CVC-0006(Q)	STC	Q				100455		

2CV5	**2 CVC LET DOWN ORIFICE ISOLATION AIR OPRD GLB VLV**									
205328-2	*Chemical and Volume Control Operation*	*F9*	*2*	*A*	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0006(Q)	FSTC	Q				100455		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290726		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CVC-0006(Q)	STC	Q				100455		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CV6	**2 CVC REGEN HT EXCHG TO LET DOWN HT EXCHG LINE SAF RLF VLV**									
205328-2	*Chemical and Volume Control Operation*	*G9*	*2*	*C*	*RV*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290108		
2CV7	**2 CVC REGEN HT EXCHG TO LET DOWN HT EXCHG STOP AIR OPRD GLB VLV**							
205328-2	*Chemical and Volume Control Operation*	*G8*	*2*	*A*	*PL*	*AIR*	*2*	*O* / *C* / *Active*
S2.OP-ST.CVC-0007(Q)	FSTC	CS	CS-14			100456		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290727		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CVC-0007(Q)	STC	CS	CS-14			100456		
2CV40	**2 CVC VOLUME CONTROL TK OUTLET STOP MOV**							
205328-1	*Chemical and Volume Control Operation*	*E9*	*2*	*B*	*GT*	*MO*	*4*	*O* / *C* / *Active*
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CVC-0007(Q)	STC	CS	CS-15			100456		
2CV41	**2 CVC VOLUME CONTROL TK OUTLET LINE OUTBD GATE MOV**							
205328-1	*Chemical and Volume Control Operation*	*D9*	*2*	*B*	*GT*	*MO*	*4*	*O* / *C* / *Active*
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CVC-0007(Q)	STC	CS	CS-15			100456		
2CV42	**2 CVC VOLUME CONTROL TK OUTLET TO CHG PMP HEADER CHECK VLV**							
205328-1	*Chemical and Volume Control Operation*	*D9*	*2*	*C*	*CK*	*SELF*	*4*	*O* / *O* / *Passive*
								No inservice testing required for this component
2CV43	**2 CVC CHG SAFETY INJ PMP SUCT HEADER SAF RLF VLV**							
205328-2	*Chemical and Volume Control Operation*	*E2*	*2*	*C*	*RV*	*SELF*	*0.75*	*C* / *O/C* / *Active*
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290110		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CV47	**2 CVC CHG SAFETY INJ PMP 21 DISCH CHECK VLV**									
205328-2	*Chemical and Volume Control Operation*	*D5*	*2*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0003(Q)	CTC	Q				100676		
S2.OP-ST.SJ-0016(Q)	CTO	RF		RJ-09		101048		
S2.OP-ST.CVC-0003(Q)	PS	Q				100676		

2CV52	**2 CVC CHG SAFETY INJ PMP 22 DISCH CHECK VLV**									
205328-2	*Chemical and Volume Control Operation*	*C5*	*2*	*C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0004(Q)	CTC	Q				100677		
S2.OP-ST.SJ-0016(Q)	CTO	RF		RJ-09		101048		
S2.OP-ST.CVC-0004(Q)	PS	Q				100677		

2CV63	**2 CVC CHG SAFETY INJ PMP 23 DISCH CHECK VLV**									
205328-2	*Chemical and Volume Control Operation*	*A5*	*2*	*C*	*CK*	*SELF*	*3*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0005(Q)	CTO	Q				100678		

2CV68	**2 CVC CHG SAFETY INJ TO REGEN HT EXCHG STOP GATE MOV**									
205328-2	*Chemical and Volume Control Operation*	*D8*	*2*	*A*	*GT*	*MO*	*3*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290811		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CVC-0007(Q)	STC	CS	CS-16			100456		

2CV69	**2 CVC CHG SAFETY INJ TO REGEN HT EXCHG STOP GATE VLV**									
205328-2	*Chemical and Volume Control Operation*	*D8*	*2*	*A*	*GT*	*MO*	*3*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290812		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CVC-0007(Q)	STC	CS	CS-16			100456		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CV71	**2 CVC CHG SAFETY INJ TO REGEN HT EXCH INLET AIR OPRD GLB VLV**									
205328-2	*Chemical and Volume Control Operation*	*C7*	*2*	*B*	*GB*	*AIR*	*3*	*O*	*O*	*Passive*
								No inservice testing required for this component v		
2CV74	**2 CVC CHG SAFETY INJ TO REGEN HT EXCHG INLET CHECK VLV**									
205328-2	*Chemical and Volume Control Operation*	*E8*	*2*	*A/C*	*CK*	*SELF*	*3*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-10		290813		
S2.OP-ST.CVC-0006(Q)	CTO	Q				100455		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290813		
2CV75	**2 CVC REGEN HT EXCHG OUT CHG LINE TO PZR AUX SPRAY AIR OPRD VLV**							
205328-2	*Chemical and Volume Control Operation*	*E10*	*1*	*B*	*GB*	*AIR*	*2*	*C* / *O/C* / *Active*
S2.OP-ST.CVC-0007(Q)	FSTC	CS	CS-17			100456		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CVC-0007(Q)	STC	CS	CS-17			100456		
S2.OP-ST.CVC-0007(Q)	STO	CS	CS-17			100456		
2CV76	**2 CVC REGEN HT EXCHG CHG LINE TO PZR AUX SPRAY CHECK VLV**							
205328-2	*Chemical and Volume Control Operation*	*E10*	*1*	*C*	*CK*	*SELF*	*2*	*C* / *O* / *Active*
S2.OP-ST.CVC-0007(Q)	CTO	CS	CS-18			100456		
2CV77	**2 CVC REGENERATIVE HT EXCHG OUTLET ISOLATION AIR OPRD GLB VLV**							
205328-2	*Chemical and Volume Control Operation*	*E10*	*1*	*B*	*GB*	*AIR*	*3*	*C/O* / *O* / *Active*
S2.OP-ST.CVC-0006(Q)	FSTO	Q				100455		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CVC-0006(Q)	STO	Q				100455		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CV78	**2 CVC REGEN HT EXCHG TO REACT COOL 23 COLD LEG OUTBD CHECK VLV**									
205328-2	*Chemical and Volume Control Operation*	*E11*	*1*	*C*	*CK*	*SELF*	*3*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0007(Q)	CTO	CS	CS-19			100456		
S2.OP-ST.CVC-0006(Q)	PS	Q				100455		
2CV79	**2 CVC REGEN HT EXCHG TO REACT COOL 24 COLD LEG AIR OPRD GLB VLV**							
205328-2	*Chemical and Volume Control Operation*	*E10*	*1*	*B*	*GB*	*AIR*	*3*	*O/C*	*O*	*Active*
S2.OP-ST.CVC-0006(Q)	FSTO	Q				100455		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CVC-0006(Q)	STO	Q				100455		
2CV80	**2 CVC REGEN HT EXCHG TO REACT COOL 24 COLD LEG LINE CHECK VLV**							
205328-2	*Chemical and Volume Control Operation*	*E11*	*1*	*C*	*CK*	*SELF*	*3*	*C*	*O*	*Active*
S2.OP-ST.CVC-0007(Q)	CTO	CS	CS-19			100456		
S2.OP-ST.CVC-0006(Q)	PS	Q				100455		
21CV99	**21 CVC RCP SEAL WTR INJ SUPPLY CHECK VLV**							
205328-3	*Chemical and Volume Control Operation*	*F3*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-11		290731		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290731		
22CV99	**22 CVC RCP SEAL WTR INJ SUPPLY LINE CHECK VLV**							
205328-3	*Chemical and Volume Control Operation*	*F3*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-11		290732		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290732		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23CV99	**23 CVC RCP SEAL WTR INJ SUPPLY LINE CHECK VLV**									
205328-3	*Chemical and Volume Control Operation*	*C3*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-11		290733		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290733		

24CV99	**24 CVC RCP SEAL WTR INJ SUPPLY LINE CHECK VLV**									
205328-3	*Chemical and Volume Control Operation*	*B3*	*2*	*A/C*	*CK*	*SELF*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-11		290734		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290734		

2CV115	**2 CVC RCP SEAL WTR INJ RETURN HEADER TO PZR RLF TK SAF RLF VLV**									
205328-3	*Chemical and Volume Control Operation*	*C1*	*2*	*C*	*RV*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				202136		

2CV116	**2 CVC RCP SEAL WTR RET HDR STOP GATE MOV**									
205328-2	*Chemical and Volume Control Operation*	*H5*	*2*	*A*	*GT*	*MO*	*4*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290728		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CVC-0007(Q)	STC	CS	CS-20			100456		

2CV135	**2 CVC CHG SAFETY INJ PMP 21 TO SEAL WTR HT EXCHG ISLN CHECK VLV**									
205328-2	*Chemical and Volume Control Operation*	*E4*	*2*	*C*	*CK*	*SELF*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0003(Q)	CTO	Q				100676		

2CV137	**2 CVC CHG SAFETY INJ PMP 22 TO SEAL WTR HT EXCHG LINE CHECK VLV**									
205328-2	*Chemical and Volume Control Operation*	*D4*	*2*	*C*	*CK*	*SELF*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0004(Q)	CTO	Q				100677		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CV139	**2 CVC CHG SAFETY INJ PMPS TO SEAL WTR HT EXCHG LINE STOP MOV**									
205328-2	*Chemical and Volume Control Operation*	*E3*	*2*	B	*GB*	*MO*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CVC-0006(Q)	STC	Q				100455		
S2.OP-ST.CVC-0006(Q)	STO	Q				100455		

2CV140	**2 CVC CHG SAFETY INJ PMPS TO SEAL WTR HT EXCHG LINE STOP MOV**									
205328-2	*Chemical and Volume Control Operation*	*E3*	*2*	B	*GB*	*MO*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CVC-0006(Q)	STC	Q				100455		
S2.OP-ST.CVC-0006(Q)	STO	Q				100455		

2CV141	**2 CVC RECIP CHG SAFETY INJ PMP 23 DISCH LINE SAF RLF VLV**									
205328-2	*Chemical and Volume Control Operation*	*A5*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290112		

21CV154	**21 CVC BA TRANS PMP DISCH CHECK VLV**									
205328-1	*Chemical and Volume Control Operation*	*F1*	*2*	C	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0001(Q)	CTC	Q				100687		
S2.OP-ST.CVC-0001(Q)	CTO	Q				100687		

22CV154	**22 CVC BA TRANSFER PUMP DISCH CHECK VLV**									
205328-1	*Chemical and Volume Control Operation*	*F3*	*2*	C	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0002(Q)	CTC	Q				100688		
S2.OP-ST.CVC-0002(Q)	CTO	Q				100688		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21CV160	**21 CVC BORIC ACID TK INLET AIR OPRD GLB VLV**									
205328-1	*Chemical and Volume Control*	*G2*	*2*	B	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0006(Q)	FSTC	Q				100455		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CVC-0006(Q)	STC	Q				100455		

22CV160	**22 CVC BORIC ACID TK INLET AIR OPRD GLB VLV**									
205328-1	*Chemical and Volume Control*	*G3*	*2*	B	*GB*	*AIR*	*2*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0006(Q)	FSTC	Q				100455		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CVC-0006(Q)	STC	Q				100455		

2CV175	**2 CVC BA TRANSFER LINE STOP MOV**									
205328-1	*Chemical and Volume Control Operation*	*F8*	*2*	B	*GB*	*MO*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.CVC-0006(Q)	STO	Q				100455		

2CV176	**2 CVC BA TRANS VOLUME CONTROL TK BY PASS LINE CHECK VLV**									
205328-1	*Chemical and Volume Control Operation*	*F8*	*2*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0007(Q)	CTO	CS	CS-21			100456		

2CV241	**2 CVC VOLUME CONTROL TK TO HOLD UP TANKS SAF RLF VLV**									
205328-1	*Chemical and Volume Control Operation*	*H10*	*2*	C	*RV*	*SELF*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				203981		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2CV274	**2 CVC REGEN HT EXCHG CHG LINE TO REACT COOL LOOP 23 INBD CHECK VLV**									
205328-2	*Chemical and Volume Control Operation*	*E10*	*1*	*C*	*CK*	*SELF*	*3*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0007(Q)	CTO	CS	CS-19			100456		
S2.OP-ST.CVC-0006(Q)	PS	Q				100455		

2CV275	**2 CVC REGEN HT EXCHG TO REACT COOL 24 COLD LEG INBD CHECK VLV**									
205328-2	*Chemical and Volume Control Operation*	*E10*	*1*	*C*	*CK*	*SELF*	*3*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0007(Q)	CTO	CS	CS-19			100456		
S2.OP-ST.CVC-0006(Q)	PS	Q				100455		

2CV284	**2 CVC RCP SEAL WTR INJ RETURN HEADER STOP GATE MOV**									
205328-3	*Chemical and Volume Control Operation*	*C2*	*2*	*A*	*GT*	*MO*	*4*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290729		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CVC-0007(Q)	STC	CS	CS-20			100456		

2CV296	**2 CVC RCP SEAL WTR INJ RETURN STOP MOV 2CV296 RECIRC LINE CKVL**									
205328-3	*Chemical and Volume Control Operation*	*C2*	*2*	*A/C*	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-12		290730		
S2.OP-ST.CVC-0007(Q)	CTO	RF		RJ-12		100456		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290730		

21DA6A	**21 DIESEL GEN DIESEL STARTING AIR RECEIVER INLET CHECK VLV**									*AUGMENTED*
205241-4	*Diesel Engine Auxiliaries*	*D4*	*N*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0009(Q)	CTC	Q				100449		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22DA6A	22 DIESEL GEN DIESEL STARTING AIR RECEIVER INLET CHECK VLV									AUGMENTED
205241-4	Diesel Engine Auxiliaries	D5	N	A/C	CK	SELF	0.75	O/C	C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0009(Q)	CTC	Q				100449		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21DA6B	21 DIESEL GEN DIESEL STARTING AIR RECEIVER INLET CHECK VLV									AUGMENTED
205241-5	Diesel Engine Auxiliaries	D4	N	A/C	CK	SELF	0.75	O/C	C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0010(Q)	CTC	Q				101138		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22DA6B	22 DIESEL GEN DIESEL STARTING AIR RECEIVER INLET CHECK VLV									AUGMENTED
205241-5	Diesel Engine Auxiliaries	D5	N	A/C	CK	SELF	0.75	C	C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0010(Q)	CTC	Q				101138		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21DA6C	21 DIESEL GEN DIESEL STARTING AIR RECEIVER INLET CHECK VLV									AUGMENTED
205241-6	Diesel Engine Auxiliaries	D4	N	A/C	CK	SELF	0.75	O/C	C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0011(Q)	CTC	Q				101139		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22DA6C	22 DIESEL GEN DIESEL STARTING AIR RECEIVER INLET CHECK VLV									AUGMENTED
205241-6	Diesel Engine Auxiliaries	D5	N	A/C	CK	SELF	0.75	O/C	C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0011(Q)	CTC	Q				101139		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21DA10A	21 DIESEL GEN DIESEL STARTING AIR RECEIVER SAF RLF VLV									AUGMENTED
205241-4	Diesel Engine Auxiliaries	E4	N	C	RV	SELF	0.75	C	O/C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290114		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22DA10A	22 DIESEL GEN DIESEL STARTING AIR RECEIVER SAFETY RELIEF VLV									AUGMENTED
205241-4	Diesel Engine Auxiliaries	E5	N	C	RV	SELF	0.75	C	O/C	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290120		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21DA10B	**21 DIESEL GEN DIESEL STARTING AIR RECEIVER SAF RLF VLV**									*AUGMENTED*
205241-5	*Diesel Engine Auxiliaries*	*E4*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290116		

22DA10B	**22 DIESEL GEN DIESEL STARTING AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-5	*Diesel Engine Auxiliaries*	*E5*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290122		

21DA10C	**21 DIESEL GEN DIESEL STARTING AIR RECEIVER SAF RLF VLV**									*AUGMENTED*
205241-6	*Diesel Engine Auxiliaries*	*E4*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290118		

22DA10C	**22 DIESEL GEN DIESEL STARTING AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-6	*Diesel Engine Auxiliaries*	*E5*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290124		

21DA13A	**2A DIESEL GEN STARTING AIR MOTOR SV (SV878)**									*AUGMENTED*
205241-4	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S2.OP-ST.DG-0006(Q)	FSO	CS	CS-22			100345		
S2.OP-ST.DG-0001(Q)	STO	Q			RR-03	101296		

22DA13A	**2A DIESEL GEN STARTING AIR MOTOR SV (SV877)**									*AUGMENTED*
205241-4	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S2.OP-ST.DG-0006(Q)	FSO	CS	CS-22			100345		
S2.OP-ST.DG-0001(Q)	STO	Q			RR-03	101297		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21DA13B	**2B DIESEL GEN STARTING AIR MOTOR SV (SV884)**									*AUGMENTED*
205241-5	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*
22DA13B	**2B DIESEL GEN STARTING AIR MOTOR SV (SV883)**									*AUGMENTED*
205241-5	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*
21DA13C	**2C DIESEL GEN STARTING AIR MOTOR SV (SV890)**									*AUGMENTED*
205241-6	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*
22DA13C	**2C DIESEL GEN STARTING AIR MOTOR SV (SV889)**									*AUGMENTED*
205241-6	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*
21DA14A	**2A DIESEL GEN STARTING AIR MOTOR SV (SV879)**									*AUGMENTED*
205241-4	*Diesel Engine Auxiliaries*	*F4*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0007(Q)	FSO	CS	CS-22			100351		
S2.OP-ST.DG-0002(Q)	STO	Q			RR-03	101298		
S2.OP-ST.DG-0007(Q)	FSO	CS	CS-22			100351		
S2.OP-ST.DG-0002(Q)	STO	Q			RR-03	101299		
S2.OP-ST.DG-0008(Q)	FSO	CS	CS-22			100346		
S2.OP-ST.DG-0003(Q)	STO	Q			RR-03	101300		
S2.OP-ST.DG-0008(Q)	FSO	CS	CS-22			100346		
S2.OP-ST.DG-0003(Q)	STO	Q			RR-03	101301		
S2.OP-ST.DG-0006(Q)	FSO	CS	CS-22			100345		
S2.OP-ST.DG-0001(Q)	STO	Q			RR-03	101296		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22DA14A	**2A DIESEL GEN STARTING AIR MOTOR SV (SV880)**									*AUGMENTED*
205241-4	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0006(Q)	FSO	CS	CS-22			100345		
S2.OP-ST.DG-0001(Q)	STO	Q			RR-03	100422		

21DA14B	**2B DIESEL GEN STARTING AIR MOTOR SV (SV885)**									*AUGMENTED*
205241-5	*Diesel Engine Auxiliaries*	*F4*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S2.OP-ST.DG-0007(Q)	FSO	CS	CS-22			100351		
S2.OP-ST.DG-0002(Q)	STO	Q			RR-03	101298		

22DA14B	**2B DIESEL GEN STARTING AIR MOTOR SV (SV886)**									*AUGMENTED*
205241-5	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S2.OP-ST.DG-0007(Q)	FSO	CS	CS-22			100351		
S2.OP-ST.DG-0002(Q)	STO	Q			RR-03	101299		

21DA14C	**2C DIESEL GEN STARTING AIR MOTOR SV (SV891)**									*AUGMENTED*
205241-6	*Diesel Engine Auxiliaries*	*F4*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S2.OP-ST.DG-0008(Q)	FSO	CS	CS-22			100346		
S2.OP-ST.DG-0003(Q)	STO	Q			RR-03	101300		

22DA14C	**2C DIESEL GEN STARTING AIR MOTOR SV (SV892)**									*AUGMENTED*
205241-6	*Diesel Engine Auxiliaries*	*F5*	*N*	B	*GB*	*SOL*	*2*	*C*	*O*	*Active*

S2.OP-ST.DG-0008(Q)	FSO	CS	CS-22			100346		
S2.OP-ST.DG-0003(Q)	STO	Q			RR-03	101301		

2DA17A	**2 DIESEL GEN DIESEL TURBO BOOST AIR COMPRESSOR OUTLET CHECK VLV**									*AUGMENTED*
205241-4	*Diesel Engine Auxiliaries*	*G1*	*N*	A/C	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

S2.OP-ST.DG-0009(Q)	CTC	Q				100449		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2DA17B	**2 DIESEL GEN DIESEL TURBO BOOST AIR COMPRESSOR OUTLET CHECK VLV**									*AUGMENTED*
205241-5	*Diesel Engine Auxiliaries*	*G1*	*N*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0010(Q)	CTC	Q				101138		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2DA17C	**2 DIESEL GEN DIESEL TURBO BOOST AIR COMPRESSOR OUTLET CHECK VLV**									*AUGMENTED*
205241-6	*Diesel Engine Auxiliaries*	*G1*	*N*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0011(Q)	CTC	Q				101139		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21DA19A	**21 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-4	*Diesel Engine Auxiliaries*	*G2*	*N*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290126		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22DA19A	**22 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-4	*Diesel Engine Auxiliaries*	*G3*	*N*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290132		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21DA19B	**21 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-5	*Diesel Engine Auxiliaries*	*G2*	*N*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290128		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22DA19B	**22 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-5	*Diesel Engine Auxiliaries*	*G3*	*N*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290134		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21DA19C	**21 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-6	*Diesel Engine Auxiliaries*	*G2*	*N*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290130		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22DA19C	**22 DIESEL GEN DIESEL TURBO BOOST AIR RECEIVER SAFETY RELIEF VLV**									*AUGMENTED*
205241-6	*Diesel Engine Auxiliaries*	*G3*	*N*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290136		

2DA36A	**2 DIESEL GEN DIESEL ENGINE LUBE OIL HEATER OUTLET CHECK VLV**									
205241-4	*Diesel Engine Auxiliaries*	*C9*	*N*	C	*CK*	*SELF*	*4*	*O*	*O*	*Passive*

No inservice testing required for this component

2DA36B	**2 DIESEL GEN DIESEL ENGINE LUBE OIL HEATER OUTLET CHECK VLV**									
205241-5	*Diesel Engine Auxiliaries*	*C9*	*N*	C	*CK*	*SELF*	*4*	*O*	*O*	*Passive*

No inservice testing required for this component.

2DA36C	**2 DIESEL GEN DIESEL ENGINE LUBE OIL HEATER OUTLET CHECK VLV**									
205241-6	*Diesel Engine Auxiliaries*	*C9*	*N*	C	*CK*	*SELF*	*4*	*O*	*O*	*Passive*

No inservice testing required for this component

2DF28	**2 FUEL OIL DIESEL FUEL OIL STORAGE TANKS RETURN STOP VLV**									*AUGMENTED*
205249-3	*Fuel Oil*	*C7*	*N*	B	*GT*	*MAN*	*4.0*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0006(Q)	FSO	Q				101465		

21DF29	**21 FUEL OIL DIESEL FUEL OIL STORAGE TANK INLET VLV**									*AUGMENTED*
205249-3	*Fuel Oil*	*B7*	*N*	B	*GT*	*MAN*	*4.0*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0006(Q)	FSO	Q				101465		

22DF29	**22 FUEL OIL DIESEL FUEL OIL STORAGE TANK INLET VLV**									*AUGMENTED*
205249-3	*Fuel Oil*	*B6*	*N*	B	*GT*	*MAN*	*4.0*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0006(Q)	FSO	Q				101465		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2DF30	2 FUEL OIL EMERGENCY TRUCK DELIVERY CONNECTION INLET VLV									AUGMENTED
205249-3	Fuel Oil	B7	N	B	GB	MAN	2.0	C	O	Active

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0006(Q)	FSO	Q				101465		

2DF31	2 FUEL OIL EMERGENCY TRUCK DELIVERY CONNECTION INLET CHECK VLV									AUGMENTED
205249-3	Fuel Oil	B7	N	C	CK	SELF	2.0	C	O	Active

SC.MD-PM.ZZ-0124(Q)	FSO	RF				205086		

21DF38	21 FUEL OIL DIESEL FUEL OIL TRANSFER PUMP OUTLET CHECK VLV									AUGMENTED
205249-3	Fuel Oil	A6	N	C	CK	SELF	2	C	O	Active

S2.OP-ST.DG-0004(Q)	CTO	Q				100514		

22DF38	22 FUEL OIL DIESEL FUEL OIL TRANSFER PUMP OUTLET CHECK VLV									AUGMENTED
205249-3	Fuel Oil	B4	N	C	CK	SELF	2	C	O	Active

S2.OP-ST.DG-0005(Q)	CTO	Q				101126		

21DF61	21 FUEL OIL DIESEL FUEL OIL DAY TANK NO 2A INLET CHECK VLV									AUGMENTED
205249-3	Fuel Oil	H4	N	C	CK	SELF	2	C	O	Active

S2.OP-ST.DG-0004(Q)	CTO	Q				100514		

22DF61	22 FUEL OIL DIESEL FUEL OIL DAY TANK NO.2A INLET CHECK VLV									AUGMENTED
205249-3	Fuel Oil	H4	N	C	CK	SELF	2	C	O	Active

S2.OP-ST.DG-0005(Q)	CTO	Q				101126		

21DF62	21 FUEL OIL DIESEL FUEL OIL DAY TANK NO.2B INLET CHECK VLV									AUGMENTED
205249-3	Fuel Oil	G5	N	C	CK	SELF	2	C	O	Active

S2.OP-ST.DG-0004(Q)	CTO	Q				100514		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22DF62	**22 FUEL OIL DIESEL FUEL OIL DAY TANK NO.2B INLET CHECK VLV**									*AUGMENTED*
205249-3	*Fuel Oil*	*F5*	*N*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0005(Q)	CTO	Q				101126		

21DF63	**21 FUEL OIL DIESEL FUEL OIL DAY TANK NO.2C INLET CHECK VLV**									*AUGMENTED*
205249-3	*Fuel Oil*	*D5*	*N*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0004(Q)	CTO	Q				100514		

22DF63	**22 FUEL OIL DIESEL FUEL OIL DAY TANK NO.2C INLET CHECK VLV**									*AUGMENTED*
205249-3	*Fuel Oil*	*E5*	*N*	C	*CK*	*SELF*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0005(Q)	CTO	Q				101126		

2DR7	**2 DEMINERALIZER WATER AUX FEEDWATER TANK INLET CHECK VALVE**									
205246-2	*Demineralized Water - Restricted Areas*	*D7*	*3*	C	*CK*	*SELF*	*6*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	CTC	Q				100665		

2DR29	**2 DEMIN WTR UNIT 1 TO CONTMT AIR OPRD GATE VLV**									
205246-2	*Demineralized Water - Restricted Areas*	*E4*	*2*	A	*GT*	*AIR*	*4*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290735		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2DR30	**2 DEMIN WTR REACT CONTMT INLET LINE CKVL**									
205246-2	*Demineralized Water - Restricted Areas*	*E3*	*2*	A/C	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-34		290736		
S2.OP-ST.ZZ-0005(Q)	CTO	RF		RJ-34		101429	TP-5	Disassembly & Inspection Method
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290736		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2DR177	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**									*AUGMENTED*
205246-2	*Demineralized Water - Restricted Areas*	*E3*	*N*	C	*RV*	*SELF*	*.5*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 2EC-3612 , see PMCR 970320324
2FP147	**2 FIRE PROT REAC CONTMT INLET AIR OPRD PLUG/CTL VLV**							
205222-2	*Fire Protection*	*F5*	*2*	A	*GT*	*AIR*	*4*	*C* / *C* / *Active*
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290737		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		
2FP148	**2 FIRE PROT REAC CONTMT INLET CHK VLV**							
205222-2	*Fire Protection*	*F4*	*2*	A/C	*CK*	*SELF*	*4*	*C* / *O/C* / *Active*
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-34		290738		
S2.OP-ST.ZZ-0005(Q)	CTO	RF		RJ-34		101429	TP-5	Disassembly & Inspection Method
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290738		
2FP153	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**							*AUGMENTED*
205222-2	*Fire Protection*	*D3*	*N*	C	*RV*	*SELF*	*.75*	*C* / *O* / *Active*
SC.MD-PT.ZZ-0007(Q)	RV	10YR				205042		Refer to WB3, ZEO-02441
21GB4	**21 STM GEN DRN & BLDWN OUTLET AIR OPRD ISOL GLB VLV**							
205325-2	*Steam Generator Drains and Blowdown*	*H10*	*2*	A	*GB*	*AIR*	*3*	*O* / *C* / *Active*
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
SC.RA-IS.GB-0004(Q)	LT	2YR				291145		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22GB4	**22 STM GEN DRN & BLDWN STGEN OUTLET AIR OPRD STOP GLB VLV**									
205325-2	*Steam Generator Drains and Blowdown*	*G10*	*2*	A	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
SC.RA-IS.GB-0004(Q)	LT	2YR				291145		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

23GB4	**23 STM GEN DRN & BLDWN STGEN TO OUTLET AIR OPRD GLB VLV**									
205325-2	*Steam Generator Drains and Blowdown*	*G10*	*2*	A	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
SC.RA-IS.GB-0004(Q)	LT	2YR				291145		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

24GB4	**24 STM GEN DRN & BLDWN STGEN OUTLET AIR OPRD GLB VLV**									
205325-2	*Steam Generator Drains and Blowdown*	*F10*	*2*	A	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
SC.RA-IS.GB-0004(Q)	LT	2YR				291145		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

21MS7	**21 MN STM & TRB BY PASS STGEN ISLN VLV BODY DR HDR AIR OPRD ISLN V**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*E5*	*2*	B	*GB*	*AIR*	*2*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22MS7	**22 MN STM & TRB BY PASS STGEN ISLN VLV DR HDR AIR OPRD ISLN VALVE**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*C6*	*2*	B	*GB*	*AIR*	*2*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

23MS7	**23 MN STM & TRB BY PASS STM GEN ISOL VLV BODY AIR OPRD DRN VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*A5*	*2*	B	*GB*	*AIR*	*2*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

24MS7	**24 MN STM & TRB BY PASS STGEN ISLN VLV BODY DR AIR OPRD ISLN VALVE**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*F6*	*2*	B	*GB*	*AIR*	*2*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

21MS10	**21 MN STM & TRB BY PASS POWER OPRD SAF RLF VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*G7*	*2*	B	*GB*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTC	CS	CS-23			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-23			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-23			100844		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22MS10	**22 MN STM & TRB BY PASS STM GEN HDR AIR OPRD VENT VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*D6*	*2*	B	*GB*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTC	CS	CS-23			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-23			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-23			100844		

23MS10	**23 MN STM & TRB BY PASS AIR OPRD POWER RLF VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*C7*	*2*	B	*GB*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTC	CS	CS-23			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-23			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-23			100844		

24MS10	**24 MN STM & TRB BY PASS NO 24 STGEN HDR AIR OPRD GLB VALVE**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*G6*	*2*	B	*GB*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTC	CS	CS-23			100844		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0002(Q)	STC	CS	CS-23			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-23			100844		

21MS11	**21 MN STM & TRB BY PASS STGEN SAF RLF VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*F3*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-ST.MS-0001(Q)	RV	5YR				290154		

22MS11	**22 MN STM & TRB BY PASS STGEN SAF RLF VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*D3*	*2*	C	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-ST.MS-0001(Q)	RV	5YR				290156		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23MS11	**23 MN STM & TRB BY PASS STM GEN SAF RLF VLV 23MS11**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*C3*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-ST.MS-0001(Q)	RV	5YR				290158		

24MS11	**24 MN STM & TRB BY PASS STGEN SAF RLF VALVE**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*G3*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290160		

21MS12	**21 MN STM & TRB BY PASS STM GEN SAF RLF VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*F4*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290162		

22MS12	**22 MN STM & TRB BY PASS STGEN SAF RLF VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*D4*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290164		

23MS12	**23 MN STM & TRB BY PASS STM GEN SAF RLF VLV 23MS12**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*C4*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290166		

24MS12	**24 MN STM & TRB BY PASS STM GEN SAF RLF VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*G4*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290168		

21MS13	**21 MN STM & TRB BY PASS STGEN SAF RLF VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*F5*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

SC.MD-ST.MS-0001(Q)	RV	5YR				290170		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22MS13	**22 MN STM & TRB BY PASS STGEN SAF RLF VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*D5*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-ST.MS-0001(Q)	RV	5YR				290172		
23MS13	**23 MN STM & TRB BY PASS STM GEN SAF RLF VLV 23MS13**							
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*C5*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290174		
24MS13	**24 MN STM & TRB BY PASS STGEN SAFETY RELIEF VALVE**							
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*G4*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290176		
21MS14	**21 MN STM & TRB BY PASS STGEN SAF RLF VLV**							
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*F6*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290178		
22MS14	**22 MN STM & TRB BY PASS STGEN SAF RLF VLV**							
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*D5*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290180		
23MS14	**23 MN STM & TRB BY PASS STM GEN SAF RLF VLV 23MS14**							
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*C6*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290182		
24MS14	**24 MN STM & TRB BY PASS STGEN SAFETY RELIEF VALVE**							
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*G5*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290184		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21MS15	**21 MN STM & TRB BY PASS STGEN SAF RLF VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*F6*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-ST.MS-0001(Q)	RV	5YR				290186		
22MS15	**22 MN STM & TRB BY PASS STGEN SAF RLF VLV**							
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*D6*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290188		
23MS15	**23 MN STM & TRB BY PASS STM GEN SAF RLF VLV 23MS15**							
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*C6*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290190		
24MS15	**24 MN STM & TRB BY PASS STGEN SAFETY RELIEF VALVE**							
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*G6*	*2*	*C*	*RV*	*SELF*	*8*	*C*	*O/C*	*Active*
SC.MD-ST.MS-0001(Q)	RV	5YR				290192		
21MS18	**21 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD BYPASS VLV**							
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*E4*	*2*	*B*	*GT*	*AIR*	*3*	*O/C*	*C*	*Active*
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		
22MS18	**22 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD BYPASS VLV**							
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*C4*	*2*	*B*	*GT*	*AIR*	*3*	*O/C*	*C*	*Active*
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23MS18	**23 MN STM & TRB BY PASS AIR OPRD STM GEN ISOL VLV BYPASS VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*B4*	*2*	B	*GT*	*AIR*	*3*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

24MS18	**24 MN STM & TRB BY PASS STM GEN ISOL AIR OPRD GLB VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*F4*	*2*	B	*GT*	*AIR*	*3*	*O/C*	*C*	*Active*

S2.OP-ST.MS-0001(Q)	FSTC	Q				100544		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.MS-0001(Q)	STC	Q				100544		

21MS45	**21 MN STM & TRB BY-PASS AUX FDWTR PMP TRB 2MSE3 STM HDR ISOL VLV**									
205303-1	*Main, Reheat & Turbine By-pass Steam*	*G3*	*2*	B	*GT*	*MANUAL*	*6*	*O*	*C*	*Active*

S2.OP-ST.AF-0003(Q)	FSC	Q				100668		

23MS45	**23 MN STM & TRB BY-PASS AUX FDWTR PMP TRB 2MSE3 STM HDR ISOL VLV**									
205303-1	*Main, Reheat & Turbine By-pass Steam*	*D3*	*2*	B	*GT*	*MANUAL*	*6*	*O*	*C*	*Active*

S2.OP-ST.AF-0003(Q)	FSC	Q				100668		

21MS46	**21 MN STM & TRB BY PASS AUX FDW PMP TRB 2MSE3 STM HDR CHECK VALVE**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*H3*	*2*	C	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

S2.OP-ST.AF-0006(Q)	CTC	Q				101151		
S2.OP-ST.AF-0006(Q)	CTO	Q				101151		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23MS46	**23 MN STM & TRB BY PASS AUX FDWTR PMP TRB 2MSE3 STM SUP HDR CKVL**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*G3*	*2*	C	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0006(Q)	CTC	Q				101151		
S2.OP-ST.AF-0006(Q)	CTO	Q				101151		

2MS132	**2 MN STM & TRB BY PASS AUX FDWTR PMP TRB 2MSE3 START-STOP VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*H4*	*2*	B	*GT*	*AIR*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0003(Q)	FSTO	Q				100668		
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.AF-0003(Q)	STC	Q				100668		
S2.OP-ST.AF-0003(Q)	STO	Q				100668		

21MS167	**21 MN STM & TRB BY PASS STM GEN HYD OPRD ISOL VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*F7*	*2*	B	*GT*	*STM*	*32*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0003(Q)	FSTC	CS	CS-24			100943		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0003(Q)	STC	CS	CS-24			100943		

22MS167	**22 MN STM & TRB BY PASS STM GEN HYD OPRD ISOL VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*C7*	*2*	B	*GT*	*STM*	*32*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0003(Q)	FSTC	CS	CS-24			100943		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0003(Q)	STC	CS	CS-24			100943		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23MS167	**23 MN STM & TRB BY PASS STM GEN HYD OPRD ISOL VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*B7*	*2*	B	*GT*	*STM*	*32*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0003(Q)	FSTC	CS	CS-24			100943		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0003(Q)	STC	CS	CS-24			100943		

24MS167	**24 MN STM & TRB BY PASS STM GEN HYDR OPRD GATE VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*G7*	*2*	B	*GT*	*STM*	*32*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0003(Q)	FSTC	CS	CS-24			100943		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.MS-0003(Q)	STC	CS	CS-24			100943		

21MS169	**21 MN STM & TRB BY PASS STGEN ISLN VLV AIR OPRD STM ASST VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*G7*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-25			100844		

22MS169	**22 MN STM & TRB BY PASS STM GEN ISOL VLV STM ASSIST VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*D8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-25			100844		

23MS169	**23 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD STM ASST VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*C7*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-25			100844		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
24MS169	**24 MN STM & TRB BY PASS STM GEN AIR OPRD ANGLE VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*G8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-25			100844		

21MS171	**21 MN STM & TRB BY PASS STGEN ISLN VLV AIR OPRD STM ASST VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*G8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-25			100844		

22MS171	**22 MN STM & TRB BY PASS STM GEN ISOL VLV AIR OPRD STM ASSIST VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*D8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-25			100844		

23MS171	**23 MN STM & TRB BY PASS STGEN ISLN VLV AIR OPRD STM ASST VLV**									
205303-1	*Main, Reheat, and Turbine Bypass Steam*	*D8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-25			100844		

24MS171	**24 MN STM & TRB BY PASS STM GEN AIR OPRD ANGLE VLV**									
205303-2	*Main, Reheat, and Turbine Bypass Steam*	*G8*	*2*	B	*GT*	*AIR*	*2*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.MS-0002(Q)	FSTO	CS	CS-25			100844		
S2.OP-ST.MS-0002(Q)	STO	CS	CS-25			100844		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2NT25	**2 REACT COOL PZR RLF TK NITROGEN SUPPLY LINE AIR OPRD DIAPH VLV**									
205301-1	*Reactor Coolant*	*C10*	*2*	*A*	*DIA*	*AIR*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290739		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2NT26	**2 REACT COOL PZR RLF TK NITROGEN SUPPLY LINE CHECK VLV**									
205301-1	*Reactor Coolant*	*C9*	*2*	*A/C*	*CK*	*SELF*	*0.75*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-14		290740		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290740		

2NT32	**2 SAFETY INJ BOTTLED H.P. N2 TO ACCUMULATORS AIR OPRD GLB VLV**									
205334-3	*Reactor Coolant*	*H6*	*2*	*A*	*GB*	*AIR*	*1*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290741		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2NT34	**2 SAFETY INJ BOTTLED H.P. N2 TO ACCUMULATORS CHECK VLV**									
205334-3	*Reactor Coolant*	*H7*	*2*	*A/C*	*CK*	*SELF*	*1*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-14		290742		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290742		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2PR1	**2 REACT COOL POPS PZR VENT LINE AIR OPRD GLB VLV**									
205301-1	*Reactor Coolant*	*F1*	*1*	B	*GB*	*AIR*	*3*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PZR-0003(Q)	FSTC	CS	CS-26			101289		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PZR-0003(Q)	STC	CS	CS-26			101289		
S2.OP-ST.PZR-0003(Q)	STO	CS	CS-26			101289		

2PR2	**2 REACT COOL POPS VENT LINE AIR OPRD GLB VLV**									
205301-1	*Reactor Coolant*	*F2*	*1*	B	*GB*	*AIR*	*3*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PZR-0003(Q)	FSTC	CS	CS-26			101289		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PZR-0003(Q)	STC	CS	CS-26			101289		
S2.OP-ST.PZR-0003(Q)	STO	CS	CS-26			101289		

2PR3	**2 REACT COOL POPS PZR SAF RLF VLV**									
205301-1	*Reactor Coolant*	*F2*	*1*	C	*RV*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.RC-0001(Q)	RV	5YR				290194		

2PR4	**2 REACT COOL POPS PZR SAF RLF VLV**									
205301-1	*Reactor Coolant*	*F3*	*1*	C	*RV*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.RC-0001(Q)	RV	5YR				290196		

2PR5	**2 REACT COOL POPS PZR SAF RLF VLV**									
205301-1	*Reactor Coolant*	*F4*	*1*	C	*RV*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.RC-0001(Q)	RV	5YR				290198		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2PR6	**2 REACT COOL POPS PZR RLF STOP MOV**									
205301-1	*Reactor Coolant*	*F1*	*1*	B	*GB*	*MO*	*3*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PZR-0002(Q)	STC	Q				101238		
S2.OP-ST.PZR-0002(Q)	STO	Q				101238		

2PR7	**2 REACT COOL POPS PZR RLF LINE STOP MOV**									
205301-1	*Reactor Coolant*	*F2*	*1*	B	*GB*	*MO*	*3*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PZR-0002(Q)	STC	Q				101238		
S2.OP-ST.PZR-0002(Q)	STO	Q				101238		

2PR17	**2 REACT COOL POPS PZR RLF TK VENT TO GAS ANALYZER AIR OPRD GLB VLV**									
205301-1	*Reactor Coolant*	*D9*	*2*	A	*GB*	*AIR*	*0.375*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290743		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2PR18	**2 REACT COOL POPS PZR RLF TK VENT TO GAS ANALYZER AIR OPRD GLB VLV**									
205301-1	*Reactor Coolant*	*D10*	*2*	A	*GB*	*AIR*	*0.375*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290744		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2PR25	**2 REACT COOL POPS SAFETY INJ PMP RLF LINE TO PZR RLF TK CHECK VLV**									
205301-1	*Reactor Coolant*	*E9*	*2*	*A/C*	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-15		290745		
S2.OP-ST.ZZ-0003(Q)	CTO	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290745		

2PS1	**2 REACT COOL PZR SPRAY INLET STOP AIR OPRD GLB VLV**									
205301-1	*Reactor Coolant*	*E5*	*1*	B	*GB*	*AIR*	*0.5*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PZR-0003(Q)	FSTC	CS	CS-27			101289		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PZR-0003(Q)	STC	CS	CS-27			101289		

2PS3	**2 REACT COOL PZR SPRAY INLET LINE STOP AIR OPRD GLB VLV**									
205301-1	*Reactor Coolant*	*D6*	*1*	B	*GB*	*AIR*	*0.5*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PZR-0003(Q)	FSTC	CS	CS-27			101289		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PZR-0003(Q)	STC	CS	CS-27			101289		

2RC40	**2 REACT COOL REACT HEAD VENT VLV 2RC40 SV**									
205301-1	*Reactor Coolant*	*H7*	*1*	B	*GB*	*SOL*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PZR-0003(Q)	FSTC	CS	CS-28			100289		
S2.OP-ST.RC-0009(Q)	PIT	2YR				100284		
S2.OP-ST.PZR-0003(Q)	STC	CS	CS-28			100289		
S2.OP-ST.PZR-0003(Q)	STO	CS	CS-28			100289		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2RC41	**2 REACT COOL REACT HEAD VENT VLV 2RC41 SV**									
205301-1	*Reactor Coolant*	*H7*	*1*	B	*GB*	*SOL*	*0.75*	*C*	*O/C*	*Active*
2RC42	**2 REACT COOL REACT HEAD VENT VLV 2RC42 SV**									
205301-1	*Reactor Coolant*	*H7*	*1*	B	*GB*	*SOL*	*0.75*	*C*	*O/C*	*Active*
2RC43	**2 REACT COOL REACT HEAD VENT VLV 2RC43 SV**									
205301-1	*Reactor Coolant*	*H7*	*1*	B	*GB*	*SOL*	*0.75*	*C*	*O/C*	*Active*
2RH1	**2 RHR COMMON SUCT MOV GATE VLV**									
205332-2	*Residual Heat Removal*	*G10*	*1*	A	*GT*	*MO*	*14*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PZR-0003(Q)	FSTC	CS	CS-28			101289		
S2.OP-ST.RC-0009(Q)	PIT	2YR				100284		
S2.OP-ST.PZR-0003(Q)	STC	CS	CS-28			101289		
S2.OP-ST.PZR-0003(Q)	STO	CS	CS-28			101289		
S2.OP-ST.PZR-0003(Q)	FSTC	CS	CS-28			101289		
S2.OP-ST.RC-0009(Q)	PIT	2YR				100284		
S2.OP-ST.PZR-0003(Q)	STC	CS	CS-28			101289		
S2.OP-ST.PZR-0003(Q)	STO	CS	CS-28			101289		
S2.OP-ST.PZR-0003(Q)	FSTC	CS	CS-28			101289		
S2.OP-ST.RC-0009(Q)	PIT	2YR				100284		
S2.OP-ST.PZR-0003(Q)	STC	CS	CS-28			101289		
S2.OP-ST.PZR-0003(Q)	STO	CS	CS-28			101289		
S2.OP-ST.SJ-0021(Q)	LT	2YR				101303		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.RHR-0004(Q)	STC	CS	CS-29			100358		
S2.OP-ST.RHR-0004(Q)	STO	CS	CS-29			100358		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2RH2	**2 RHR COMMON SUCT MOV GATE VLV**									
205332-2	*Residual Heat Removal*	*G10*	*1*	A	*GT*	*MO*	*14*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0021(Q)	LT	2YR				101303		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.RHR-0004(Q)	STC	CS	CS-29			100358		
S2.OP-ST.RHR-0004(Q)	STO	CS	CS-29			100358		

2RH3	**2 RHR 22 TO PZR RLF TK SAF RLF VLV**									
205332-2	*Residual Heat Removal*	*H9*	*2*	C	*RV*	*SELF*	*3*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290200		

21RH4	**21 RHR PMP SUCT MOV GATE VLV**									
205332-1	*Residual Heat Removal*	*E1*	*2*	B	*GT*	*MO*	*14*	*O*	*O/C*	*Active*

S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.RHR-0003(Q)	STC	Q				100662		

22RH4	**22 RHR PMP SUCT MOV GATE VLV**									
205332-2	*Residual Heat Removal*	*E1*	*2*	B	*GT*	*MO*	*14*	*O*	*O/C*	*Active*

S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.RHR-0003(Q)	STC	Q				100662		

21RH8	**21 RHR PMP DISCH CHECK VALVE**									
205332-1	*Residual Heat Removal*	*E3*	*2*	C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

S2.OP-ST.RHR-0001(Q)	CTC	Q				100679		
S2.OP-ST.RHR-0001(Q)	CTO	CS	CS-30			101317		
S2.OP-ST.RHR-0001(Q)	PS	Q				100679		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22RH8	**22 RHR PMP DISCH CHECK VALVE**									
205332-2	*Residual Heat Removal*	*F3*	*2*	C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RHR-0002(Q)	CTC	Q				100680		
S2.OP-ST.RHR-0002(Q)	CTO	CS	CS-30			101318		
S2.OP-ST.RHR-0002(Q)	PS	Q				100680		

21RH18	**21 RHR HX FLOW CONT AIR OPRD BTFL VLV**									
205332-1	*Residual Heat Removal*	*F8*	*2*	B	*BFY*	*AIR*	*8*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0005(Q)	FSTO	CS	CS-31			100200		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0005(Q)	STO	CS	CS-31			100200		

22RH18	**22 RHR HX FLOW CONT AIR OPRD BTFL VLV**									
205332-2	*Residual Heat Removal*	*F8*	*2*	B	*BFY*	*AIR*	*8*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0005(Q)	FSTO	CS	CS-31			100200		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0005(Q)	STO	CS	CS-31			100200		

21RH19	**21 RHR HX DISCH X-CONN MOV GATE VLV**									
205332-1	*Residual Heat Removal*	*E8*	*2*	B	*GT*	*MO*	*8*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.RHR-0004(Q)	STC	CS	CS-32			100358		

22RH19	**22 RHR HX DISCH X-CONN MOV GATE VLV**									
205332-2	*Residual Heat Removal*	*E8*	*2*	B	*GT*	*MO*	*8*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.RHR-0004(Q)	STC	CS	CS-32			100358		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2RH21	**RHR Tie to Refueling Water Storage Tank**									
205332-1	*Residual Heat Removal*	*E8*	*2*	A	*GT*	*MAN*	*8*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RC-0008(Q)	LT	2YR				101428		

2RH25	**2 RHR 21 TO PZR RLF TK SAF RLF VLV**									
205332-1	*Residual Heat Removal*	*H9*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				290202		

2RH26	**2 RHR HOT LEG ISOL MOV GATE VLV**									
205332-1	*Residual Heat Removal*	*F10*	*1*	B	*GT*	*MO*	*12*	*C*	*O/C*	*Active*

S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.RHR-0004(Q)	STC	CS	CS-33			100358		
S2.OP-ST.RHR-0004(Q)	STO	CS	CS-33			100358		

23RH27	**23 RHR HOT LEG CHECK VALVE**									
205332-1	*Residual Heat Removal*	*G10*	*1*	A/C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-16		100743		
S2.OP-ST.RHR-0005(Q)	CTO	RF		RJ-16		100395		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100743		

24RH27	**24 RHR HOT LEG CHECK VALVE**									
205332-1	*Residual Heat Removal*	*G10*	*1*	A/C	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-16		100743		
S2.OP-ST.RHR-0005(Q)	CTO	RF		RJ-16		100395		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100743		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21RH29	**21 RHR PMP MIN FLOW MOV GLB VLV**									
205332-1	*Residual Heat Removal*	*G4*	*2*	B	*GB*	*MO*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.RHR-0003(Q)	STC	Q				100662		
S2.OP-ST.RHR-0003(Q)	STO	Q				100662		

22RH29	**22 RHR PMP MIN FLOW MOV GLB VLV**									
205332-2	*Residual Heat Removal*	*G4*	*2*	B	*GB*	*MO*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.RHR-0003(Q)	STC	Q				100662		
S2.OP-ST.RHR-0003(Q)	STO	Q				100662		

2RH75	**2 RHR PMP SUCT CHECK VALVE**									
205332-1	*Residual Heat Removal*	*E1*	*2*	C	*CK*	*SELF*	*14*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RHR-0001(Q)	CTC	Q				100679		
S2.OP-ST.RHR-0001(Q)	CTO	CS	CS-34			101317		

2RH76	**2 RHR 22 PMP SUCT CHECK VALVE**									
205332-2	*Residual Heat Removal*	*E1*	*2*	C	*CK*	*SELF*	*14*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RHR-0002(Q	CTC	Q				100680		
S2.OP-ST.RHR-0002(Q)	CTO	CS	CS-34			101318		

2SA118	**2 STAT AIR CONTAINMENT ISLN VLV**									
205317-2	*Compressed Air*	*D9*	*2*	A	*GT*	*MAN*	*3*	*LC*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290746		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SA119	**2 STAT AIR CONTAINMENT ISLN CHECK VLV**									
205317-2	*Compressed Air*	*D10*	*2*	*A/C*	*CK*	*SELF*	*3*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290747		
2SA262	**2 STAT AIR CONT PRESS TEST ISLN VALVE**							
205317-1	*Compressed Air*	*A6*	*2*	*A*	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290748		
2SA264	**2 STAT AIR CONT PRESS TEST ISLN GLB VLV**							
205317-1	*Compressed Air*	*A7*	*2*	*A*	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
S2.RA-IS.ZZ-0002(Q)	LJ	18M0				290749		
2SA265	**2 STAT AIR CONT PRESS TEST ISLN GLB VLV**							
205317-1	*Compressed Air*	*A6*	*2*	*A*	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290750		
2SA267	**2 STAT AIR CONT PRESS TEST LINE ISLN GLB VLV**							
205317-1	*Compressed Air*	*A7*	*2*	*A*	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290751		
2SA268	**2 STAT AIR CONT PRESS TEST LINE ISLN GLB VLV**							
205317-1	*Compressed Air*	*A6*	*2*	*A*	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290752		
2SA270	**2 STAT AIR CONT PRESS TEST ISLN GLB VLV**							
205317-1	*Compressed Air*	*A7*	*2*	*A*	*GB*	*MAN*	*0.75*	*LC*	*C*	*Passive*
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290753		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SF22	**2 SPNT FUEL CLG REFUEL WTR PURIF PMP INLET DIAPH VLV**									
205333-1	*Spent Fuel Pool Cooling*	*A6*	*2*	*A*	*DIA*	*MAN*	*3*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290754		

2SF36	**2 SPNT FUEL CLG REFUEL WTR PURIF FLTR TO REFUELING CANAL DIAPH VLV**									
205333-1	*Spent Fuel Pool Cooling*	*A3*	*2*	*A*	*DIA*	*MAN*	*2*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290756		

2SJ1	**2 SAFETY INJ REFUEL WATER STOR TK TO CHARGING PUMPS MOV**									
205334-1	*Safety Injection*	*F1*	*2*	*B*	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		
S2.OP-ST.SJ-0003(Q)	STO	Q				100481		

2SJ2	**2 SAFETY INJ REFUEL WATER STOR TK TO CHARGING PUMPS MOV**									
205334-1	*Safety Injection*	*F1*	*2*	*B*	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		
S2.OP-ST.SJ-0003(Q)	STO	Q				100481		

2SJ3	**2 SAFETY INJ REFUEL WATER STOR TK TO CHARGING PUMPS CHECK VLV**									
205334-1	*Safety Injection*	*E1*	*2*	*C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0003(Q)	CTC	Q				100481		
S2.OP-ST.SJ-0016(Q)	CTO	RF		RJ-17		101048		
S2.OP-ST.CVC-0007(Q)	PS	CS		RJ-17		100456		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SJ4	**2 SAFETY INJ CHARGING PUMPS TO BORON INJ TK MOV**									
205334-1	*Safety Injection*	*B4*	*2*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		
S2.OP-ST.SJ-0003(Q)	STO	Q				100481		

2SJ5	**2 SAFETY INJ CHARGING PUMPS TO BORON INJ TK MOV**									
205334-1	*Safety Injection*	*B4*	*2*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		

2SJ10	**BIT Thermal Relief Valve**									
205334-1	*Safety Injection*	*D7*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(LATER)		DCP 80037132

2SJ12	**2 SAFETY INJ BORON INJ TK OUTLET TO COLD LEG MOV**									
205334-1	*Safety Injection*	*D8*	*1*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		
S2.OP-ST.SJ-0003(Q)	STO	Q				100481		

2SJ13	**2 SAFETY INJ BORON INJ TK OUTLET TO COLD LEG MOV**									
205334-1	*Safety Injection*	*D8*	*1*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		
S2.OP-ST.SJ-0003(Q)	STO	Q				100481		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ17	**21 SAFETY INJ TO NO 21 COLD LEG CHECK VLV 21SJ17**									
205334-1	*Safety Injection*	*H7*	*1*	*A/C*	*CK*	*SELF*	*1.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-18		100828		
S2.OP-ST.SJ-0016(Q)	CTO	RF		RJ-18		101048		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

22SJ17	**22 SAFETY INJ COLD LEG LINE CHECK VLV**									
205334-1	*Safety Injection*	*H8*	*1*	*A/C*	*CK*	*SELF*	*1.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-18		100828		
S2.OP-ST.SJ-0016(Q)	CTO	RF		RJ-18		101048		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

23SJ17	**23 SAFETY INJ COLD LEG LINE CHECK VLV**									
205334-1	*Safety Injection*	*H10*	*1*	*A/C*	*CK*	*SELF*	*1.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-18		100828		
S2.OP-ST.SJ-0016(Q)	CTO	RF		RJ-18		101048		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

24SJ17	**24 SAFETY INJ COLD LEG LINE CHECK VLV**									
205334-1	*Safety Injection*	*H9*	*1*	*A/C*	*CK*	*SELF*	*1.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-18		100828		
S2.OP-ST.SJ-0016(Q)	CTO	RF		RJ-18		101048		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

21SJ29	**21 SAFETY INJ ACCUMULATOR SAF RLF VLV**									
205334-4	*Safety Injection*	*G2*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290208		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SJ29	**22 SAFETY INJ ACCUM 22 SAF REL VLV**									
205334-4	*Safety Injection*	*G5*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290214		

23SJ29	**23 SAFETY INJ ACCUM 23 SAF REL VLV**									
205334-4	*Safety Injection*	*G7*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290216		

24SJ29	**24 SAFETY INJ ACCUM 24 SAF REL VLV**									
205334-4	*Safety Injection*	*G10*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290218		

2SJ30	**2 SAFETY INJ REFUEL WATER STOR TK TO PUMPS STOP MOV**									
205334-2	*Safety Injection*	*G2*	*2*	*B*	*GB*	*MO*	*8*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0005(Q)	STC	CS	CS-35			100200		

2SJ31	**2 SAFETY INJ REFUEL WATER STOR TK TO PUMPS CHECK VLV**									
205334-2	*Safety Injection*	*G2*	*2*	*C*	*CK*	*SELF*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0005(Q)	CTC	Q				100481		
S2.OP-ST.SJ-0014(Q)	CTO	RF		RJ-19		100154		
S2.OP-ST.SJ-0001(Q)	PS	Q				100669		
S2.OP-ST.SJ-0002(Q)	PS	Q				100670		

2SJ32	**2 SAFETY HDR INJ SAF RLF VLV FOR PMPS SUCT HDR**									
205334-2	*Safety Injection*	*G5*	*2*	*C*	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290220		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ33	**21 SAFETY INJ PMP SUCT MOV**									
205334-2	*Safety Injection*	*G2*	*2*	B	*GT*	*MO*	*6*	*O*	*O*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		

22SJ33	**22 SAFETY INJ PMP 22 SUCT VLV**									
205334-2	*Safety Injection*	*G5*	*2*	B	*GT*	*MO*	*6*	*O*	*O*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		

21SJ34	**21 SAFETY INJ PMP DISCH CHECK VLV**									
205334-2	*Safety Injection*	*D5*	*2*	C	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0002(Q)	CTC	Q				100670		
S2.OP-ST.SJ-0014(Q)	CTO	RF		RJ-20		100154		

22SJ34	**22 SAFETY INJ PMP 22 DISCH CHECK VLV**									
205334-2	*Safety Injection*	*D7*	*2*	C	*CK*	*SELF*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0001(Q)	CTC	Q				100669		
S2.OP-ST.SJ-0014(Q)	CTO	RF		RJ-20		100154		

21SJ39	**21 SAFETY INJ SAF REL VLV ON PMP 21 DISCH HDR**									
205334-2	*Safety Injection*	*D9*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290222		

22SJ39	**22 SAFETY INJ PMP 22 DISCH HDR SAF REL VLV**									
205334-2	*Safety Injection*	*D8*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290224		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ40	**21 SAFETY INJ HOT LEG 24 HDR STOP VLV**									
205334-2	*Safety Injection*	*G9*	*1*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SJ-0005(Q)	STC	CS	CS-36			100200		
S2.OP-ST.SJ-0005(Q)	STO	CS	CS-36			100200		

22SJ40	**22 SAFETY INJ PMP 22 HDR STOP VLV**									
205334-2	*Safety Injection*	*G8*	*1*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SJ-0005(Q)	STC	CS	CS-36			100200		
S2.OP-ST.SJ-0005(Q)	STO	CS	CS-36			100200		

21SJ43	**21 SAFETY INJ CHECK VLV TO COLD LEG 21**									
205334-4	*Safety Injection*	*E3*	*1*	A/C	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-21		100828		
SC.MD-PM.ZZ-0075(Q)	CTO	SAM		RJ-21		203766	TP-5	Disassembly & Inspection Method
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0005(Q)	PS	CS		RJ-21		100200		

22SJ43	**22 SAFETY INJ COLD LEG 22 CHECK VLV**									
205334-4	*Safety Injection*	*D5*	*1*	A/C	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-21		100828		
SC.MD-PM.ZZ-0075(Q)	CTO	SAM		RJ-21		203823	TP-5	Disassembly & Inspection Method
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0005(Q)	PS	CS		RJ-21		100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SJ43	**23 SAFETY INJ COLD LEG 23 CHECK VLV**									
205334-4	*Safety Injection*	*D8*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-21		100828		
SC.MD-PM.ZZ-0075(Q)	CTO	SAM		RJ-21		203828	TP-5	Disassembly & Inspection Method
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0005(Q)	PS	CS		RJ-21		100200		

24SJ43	**24 SAFETY INJ COLD LEG 24 CHECK VLV**									
205334-4	*Safety Injection*	*D11*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-21		100828		
SC.MD-PM.ZZ-0075(Q)	CTO	SAM		RJ-21		203832	TP-5	Disassembly & Inspection Method
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0005(Q)	PS	CS		RJ-21		100200		

21SJ44	**21 SAFETY INJ CONTMT SUMP ISOL VLV**									
205334-3	*Safety Injection*	*B3*	*2*	*B*	*GT*	*MO*	*14*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR			RR-04	101397		
S2.OP-ST.SJ-0005(Q)	STC	CS	CS-37			100200		
S2.OP-ST.SJ-0005(Q)	STO	CS	CS-37			100200		

22SJ44	**22 SAFETY INJ CONTMT SUMP SUCT VLV**									
205334-3	*Safety Injection*	*B3*	*2*	*B*	*GT*	*MO*	*14*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR			RR-04	101398		
S2.OP-ST.SJ-0005(Q)	STC	CS	CS-37			100200		
S2.OP-ST.SJ-0005(Q)	STO	CS	CS-37			100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ45	**21 SAFETY INJ PMPS STOP VLV FROM RHR**									
205334-2	*Safety Injection*	*G6*	*2*	B	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0005(Q)	STO	CS	CS-38			100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SJ45	**22 SAFETY INJ RESIDUAL HT REMOVAL TO CHARGING PMP STOP MOV**									
205334-1	*Safety Injection*	*E3*	*2*	B	*GT*	*MO*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0005(Q)	STO	CS	CS-38			100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ48	**21 SAFETY INJ SAF REL VLV FOR RHR DISCH TO COLD LEG HDR**									
205334-3	*Safety Injection*	*G6*	*2*	C	*RV*	*SELF*	*2.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290226		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SJ48	**22 SAFETY INJ LOW HEAD SAF REL VLV**									
205334-3	*Safety Injection*	*D6*	*2*	C	*RV*	*SELF*	*2.5*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290228		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ49	**21 SAFETY INJ TO RHR DISCH TO COLD LEG HDR**									
205334-3	*Safety Injection*	*G7*	*1*	B	*GT*	*MO*	*8*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SJ-0005(Q)	STC	CS	CS-39			100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SJ49	**22 SAFETY INJ FROM RHR DISCH TO COLD LEGS ISOL**									
205334-3	*Safety Injection*	*D6*	*1*	B	*GT*	*MO*	*8*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST SJ-0005(Q)	STC	CS	CS-39			100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SJ53	**2 SAFETY INJ TEST LINE AIR OPRD GLB VLV**									
205334-2	*Safety Injection*	*F10*	*1*	A	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0003(Q)	FSTC	Q				100481		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290758		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		

21SJ54	**21 SAFETY INJ ACCUM 21 OUTLET VLV**									
205334-4	*Safety Injection*	*E2*	*1*	B	*GT*	*MO*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.SJ-0004(Q)	STC	CS	CS-40			100463		

22SJ54	**22 SAFETY INJ ACCUM 22 OUTLET VLV**									
205334-4	*Safety Injection*	*E4*	*1*	B	*GT*	*MO*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.SJ-0004(Q)	STC	CS	CS-40			100463		

23SJ54	**23 SAFETY INJ ACCUM 23 OUTLET VLV**									
205334-4	*Safety Injection*	*E7*	*1*	B	*GT*	*MO*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.SJ-0004(Q)	STC	CS	CS-40			100463		

24SJ54	**24 SAFETY INJ ACCUM 24 OUTLET VLV**									
205334-4	*Safety Injection*	*E10*	*1*	B	*GT*	*MO*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.SJ-0004(Q)	STC	CS	CS-40			100463		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ55	**21 SAFETY INJ ACCUM 21 OUTLET CHECK VLV**									
205334-4	*Safety Injection*	*D2*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF			RR-01	100828		
S2.OP-ST.SJ-0006(Q)	CTO	RF			RR-01	100657		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

22SJ55	**22 SAFETY INJ ACCUM 22 OUTLET CHECK VLV**									
205334-4	*Safety Injection*	*D4*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF			RR-01	100828		
S2.OP-ST.SJ-0006(Q)	CTO	RF			RR-01	100657		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

23SJ55	**23 SAFETY INJ ACCUM 23 OUTLET CHECK VLV**									
205334-4	*Safety Injection*	*D7*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF			RR-01	100828		
S2.OP-ST.SJ-0006(Q)	CTO	RF			RR-01	100657		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

24SJ55	**24 SAFETY INJ ACCUM 24 OUTLET CHECK VLV**									
205334-4	*Safety Injection*	*D10*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF			RR-01	100828		
S2.OP-ST.SJ-0006(Q)	CTO	RF			RR-01	100657		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ56	**21 SAFETY INJ ACCUM 21 OUTLET CHECK VLV**									
205334-4	*Safety Injection*	*C2*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF			RR-02	100828		
S2.OP-ST.SJ-0006(Q)	CTO	RF			RR-02	100657		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0005(Q)	PS	CS			RR-02	100200		

22SJ56	**22 SAFETY INJ COLD LEG 22 CHECK VLV**									
205334-4	*Safety Injection*	*C4*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF			RR-02	100828		
S2.OP-ST.SJ-0006(Q)	CTO	RF			RR-02	100657		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0005(Q)	PS	CS			RR-02	100200		

23SJ56	**23 SAFETY INJ COLD LEG 23 CHECK VLV**									
205334-4	*Safety Injection*	*C7*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF			RR-02	100828		
S2.OP-ST.SJ-0006(Q)	CTO	RF			RR-02	100657		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0005(Q)	PS	CS			RR-02	100200		

24SJ56	**24 SAFETY INJ COLD LEG 24 CHECK VLV**									
205334-4	*Safety Injection*	*C10*	*1*	*A/C*	*CK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF			RR-02	100828		
S2.OP-ST.SJ-0006(Q)	CTO	RF			RR-02	100657		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0005(Q)	PS	CS			RR-02	100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SJ60	**2 SAFETY INJ BORON INJ TK TO HOLD UP TK AIR OPRD GLB VLV**									
205334-4	*Safety Injection*	*B4*	*1*	A	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0003(Q)	FSTC	Q				100481		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290759		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		

2SJ63	**SAFETY INJ HOT LEG HEADER ACCUMULATOR INLET AIR OPERATED GLOBE VALVE**									
205334-4	*Safety Injection*	*B6*	*1*	B	*GB*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0003(Q)	FSTC	Q				100481		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		

21SJ64	**21 SAFETY INJ PMP TO REFUEL WATER STOR TK CHECK VLV**									
205334-2	*Safety Injection*	*D4*	*2*	C	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0002(Q)	CTC	Q				100670		
S2.OP-ST.SJ-0001(Q)	CTO	Q				100669		

22SJ64	**22 SAFETY INJ PMP 22 MIN FLOW LINE CHECK VLV**									
205334-2	*Safety Injection*	*D7*	*2*	C	*CK*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0001(Q)	CTC	Q				100669		
S2.OP-ST.SJ-0002(Q)	CTO	Q				100670		

2SJ67	**2 SAFETY INJ PMP MIN FLOW MOV**									
205334-2	*Safety Injection*	*C3*	*2*	B	*GB*	*MO*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.SJ-0005(Q)	STC	CS	CS-41			100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SJ68	**2 SAFETY INJ PMP MIN FLOW MOV**									
205334-2	*Safety Injection*	*C2*	*2*	B	*GB*	*MO*	*2*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.SJ-0005(Q)	STC	CS	CS-41			100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SJ69	**2 SAFETY INJ RESIDUAL HT REMOVAL PMP SUCT MOV**									
205334-3	*Safety Injection*	*D1*	*2*	B	*GT*	*MO*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.RHR-0004(Q)	STC	CS	CS-42			100358		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SJ70	**2 SAFETY INJ RESIDUAL HT REMOVAL PMP SUCT CHECK VLV**									
205334-3	*Safety Injection*	*E1*	*2*	C	*CK*	*SELF*	*12*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RHR-0005(Q)	CTC	RF		RJ-23		100395		
S2.OP-ST.RHR-0005(Q)	CTO	RF		RJ-23		100395		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ93	**21 SAFETY INJ ACCUMULATOR N2 INLET AIR OPRD GLB VLV**									
205334-4	*Safety Injection*	*G2*	*3*	B	*GB*	*AIR*	*1*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SJ93	**22 SAFETY INJ ACCUMULATOR N2 INLET AIR OPRD STOP GLB VLV**									
205334-4	*Safety Injection*	*G4*	*3*	B	*GB*	*AIR*	*1*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SJ93	**23 SAFETY INJ ACCUMULATOR N2 INLET AIR OPRD STOP GLB VLV**									
205334-4	*Safety Injection*	*G7*	*3*	B	*GB*	*AIR*	*1*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
24SJ93	**24 SAFETY INJ ACCUMULATOR N2 INLET STOP AIR OPRD GLB VLV**									
205334-4	*Safety Injection*	*G10*	*3*	B	*GB*	*AIR*	*1*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ113	**21 SAFETY INJ RHR TO CHARGING PMPS MOV**									
205334-1	*Safety Injection*	*E2*	*2*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.SJ-0003(Q)	STO	Q				100481		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SJ113	**22 SAFETY INJ CHARGING PMP CROSS OVER MOV**									
205334-1	*Safety Injection*	*E3*	*2*	B	*GT*	*MO*	*4*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		
S2.OP-ST.SJ-0003(Q)	STO	Q				100481		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SJ123	**2 SAFETY INJ BORON INJ TK TO HOLD UP TK AIR OPRD STOP GLB VLV**									
205334-4	*Safety Injection*	*B4*	*1*	A	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0003(Q)	FSTC	Q				100481		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290760		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ134	**21 SAFETY INJ COLD LEG ISOL VLV**									
205334-2	*Safety Injection*	*F9*	*2*	B	*GT*	*MO*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SJ134	**22 SAFETY INJ PMP 22 TO COLD LEGS VLV**									
205334-2	*Safety Injection*	*F8*	*2*	B	*GT*	*MO*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SJ135	**2 SAFETY INJ PUMPS DISCH TO COLD LEG MOV**									
205334-2	*Safety Injection*	*G9*	*1*	B	*GT*	*MO*	*4*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SJ-0005(Q)	STC	CS	CS-43			100200		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SJ139	**21 SAFETY INJ CHECK VLV TO HOT LEG 21**									
205334-3	*Safety Injection*	*D11*	*1*	A/C	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-24		100828		
S2.OP-ST.SJ-0015(Q)	CTO	RF		RJ-24		101047		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SJ139	**22 SAFETY INJ HOT LEG 22 CHECK VLV**									
205334-3	*Safety Injection*	*C11*	*1*	A/C	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-24		100828		
S2.OP-ST.SJ-0015(Q)	CTO	RF		RJ-24		101047		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SJ139	**23 SAFETY INJ HOT LEG 23 CHECK VLV**									
205334-3	*Safety Injection*	*G10*	*1*	A/C	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-24		100828		
S2.OP-ST.SJ-0015(Q)	CTO	RF		RJ-24		101047		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
24SJ139	**24 SAFETY INJ HOT LEG 24 CHECK VLV**									
205334-3	*Safety Injection*	*G8*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-24		100828		
S2.OP-ST.SJ-0015(Q)	CTO	RF		RJ-24		101047		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

21SJ144	**21 SAFETY INJ COLD LEG 21 CHECK VLV**									
205334-4	*Safety Injection*	*D3*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-25		100828		
S2.OP-ST.SJ-0014(Q)	CTO	RF		RJ-25		100154		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

22SJ144	**22 SAFETY INJ COLD LEG 22 CHECK VLV**									
205334-4	*Safety Injection*	*F6*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-25		100828		
S2.OP-ST.SJ-0014(Q)	CTO	RF		RJ-25		100154		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

23SJ144	**23 SAFETY INJ COLD LEG 23 CHECK VLV**									
205334-4	*Safety Injection*	*F8*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-25		100828		
S2.OP-ST.SJ-0014(Q)	CTO	RF		RJ-25		100154		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
24SJ144	**24 SAFETY INJ COLD LEG 24 CHECK VLV**									
205334-4	*Safety Injection*	*F11*	*1*	*A/C*	*CK*	*SELF*	*2*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-25		100828		
S2.OP-ST.SJ-0014(Q)	CTO	RF		RJ-25		100154		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

2SJ150	**2 SAFETY INJ BORON INJ TK TO COLD LEG CHECK VLV**									
205334-1	*Safety Injection*	*F9*	*1*	*A/C*	*CK*	*SELF*	*3*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-26		100828		
S2.OP-ST.SJ-0016(Q)	CTO	RF		RJ-26		101048		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

21SJ156	**21 SAFETY INJ HOT LEG 21 CKVL**									
205334-3	*Safety Injection*	*G11*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-27		100828		
S2.OP-ST.SJ-0015(Q)	CTO	RF		RJ-27		101047		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

22SJ156	**22 SAFETY INJ HOT LEG 22 CHECK VLV**									
205334-3	*Safety Injection*	*G11*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-27		100828		
S2.OP-ST.SJ-0015(Q)	CTO	RF		RJ-27		101047		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SJ156	**23 SAFETY INJ HOT LEG 23 CHECK VLV**									
205334-3	*Safety Injection*	*H9*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*
24SJ156	**24 SAFETY INJ HOT LEG 24 CHECK VLV**									
205334-3	*Safety Injection*	*H9*	*1*	*A/C*	*CK*	*SELF*	*6*	*C*	*O/C*	*Active*
2SJ158	**SAFETY INJECTION TEST LINE AIR OPERATED STOP GLOBE VALVE**									
205334-4	*Safety Injection*	*H1*	*1*	*B*	*GB*	*AIR*	*0.75*	*C*	*C*	*Active*
2SJ159	**SAFETY INJECTION AIR OPERATED STOP VALVE**									
205334-4	*Safety Injection*	*B8*	*1*	*B*	*GB*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-27		100828		
S2.OP-ST.SJ-0015(Q)	CTO	RF		RJ-27		101047		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0020(Q)	CTC	RF		RJ-27		100828		
S2.OP-ST.SJ-0015(Q)	CTO	RF		RJ-27		101047		
S2.OP-ST.SJ-0020(Q)	LT	2YR				100828		
S2.OP-ST.SJ-0003(Q)	FSTC	Q				100481		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		
S2.OP-ST.SJ-0003(Q)	FSTC	Q				100481		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SJ166	**SAFETY INJ BORON INJ TANK TO COLD LEG TEST LINE AIR OPER GLOBE VLV**									
205334-1	*Safety Injection*	*E9*	*1*	B	*GB*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SJ-0003(Q)	FSTC	Q				100481		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.SJ-0003(Q)	STC	Q				100481		

2SJ167	**2 SAFETY INJ COLD LEG LINE SAF RLF VLV**									
205334-2	*Safety Injection*	*G8*	*2*	C	*RV*	*SELF*	*0.75*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				290230		

2SJ417	**SJ SYSTEM TEST LINE THERMAL OVERPRESSURIZATION PROTECTION RV**									
205334-3	*Safety Injection*	*D8*	*2*	C	*RV*	*SELF*	*.75*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007)Q)	RV	10YR				204931		

2SS27	**2 SMPLG SYS ACCUMULATOR SAMPLE HDR ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*E6*	*2*	A	*GB*	*AIR*	*0.375*	*O/C*	C	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290761		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

2SS33	**2 SMPLG SYS REACTOR COOLANT SAMP HDR ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*G6*	*2*	A	*GB*	*AIR*	*0.375*	*O/C*	C	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290763		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SS49	**2 SMPLG SYS PZR LIQ SAMP ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*G6*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290765		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

2SS64	**2 SMPLG SYS PZR STEAM SAMP ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*H6*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290767		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

21SS94	**21 SMPLG SYS STEAM GEN BLOWDOWN SAMP ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*D7*	*2*	*B*	*GB*	*AIR*	*0.375*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

22SS94	**22 SMPLG SYS STEAM GEN BLOWDOWN SAMP ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*C7*	*2*	*A*	*GB*	*AIR*	*0.375*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SS94	**23 SMPLG SYS STEAM GEN BLOWDOWN SAMP ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*B7*	*2*	*B*	*GB*	*AIR*	*0.375*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

24SS94	**24 SMPLG SYS STEAM GEN BLOWDOWN SAMP ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*A7*	*2*	*A*	*GB*	*AIR*	*0.375*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

2SS103	**2 SMPLG SYS ACCUMULATOR SAMP HDR ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*E7*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290762		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

2SS104	**2 SMPLG SYS REACTOR COOLANT SAMP HDR ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*G7*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290764		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SS107	**2 SMPLG SYS PZR LIQ SAMP HDR AIR OPRD GLB VLV**									
205344-1	*Sampling*	*G7*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290766		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

2SS110	**2 SMPLG SYS PZR STEAM SAMP HDR ISOL AIR OPRD GLB VLV**									
205344-1	*Sampling*	*H7*	*2*	*A*	*GB*	*AIR*	*0.375*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290768		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

21SS181	**21 SMPLG SYS OUTBOARD HOT LEG AIR OPRD GLB VLV**									
205344-3	*Sampling*	*C9*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290769		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

23SS181	**23 SMPLG SYS OUTBOARD HOT LEG AIR OPRD GLB VLV**									
205344-3	*Sampling*	*D9*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290773		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SS182	**21 SMPLG SYS INBOARD HOT LEG AIR OPRD GLB VLV**									
205344-3	*Sampling*	*C10*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290770		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SS182	**23 SMPLG SYS INBOARD HOT LEG AIR OPRD GLB VLV**									
205344-3	*Sampling*	*D10*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290774		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SS184	**23 SMPLG SYS INBOARD HOT LEG RETURN AIR OPRD GLB VLV**									
205344-3	*Sampling*	*C10*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290775		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SS185	**23 SMPLG SYS OUTBOARD HOT LEG RETURN AIR OPRD GLB VLV**									
205344-3	*Sampling*	*C9*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290776		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SS188	**21 SMPLG SYS INBOARD HOT LEG RETURN AIR OPRD GLB VLV**									
205344-3	*Sampling*	*B10*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290771		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

21SS189	**21 SMPLG SYS OUTBOARD HOT LEG RETURN AIR OPRD GLB VLV**									
205344-3	*Sampling*	*B9*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.PAS-0001(Q)	FSTC	Q				100846		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290772		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.PAS-0001(Q)	STC	Q				100846		

2SS650	**SAMPLING SYSTEM THERMAL OVERPRESSURIZATION PROTECTION RV**									*AUGMENTED*
205344-1	*Sampling*	*E8*	*N*	*C*	*RV*	*SELF*	*.5*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				204932		

2SV1198	**PORV AIR ACCUMULATOR SUPPLY SOLENOID VALVE**									*AUGMENTED*
205347-3	*No. 2 Unit - React. Cont. & Penetration Area*	*H7*	*N*	*B*	*3WAY*	*SOL*	*1*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.PZR-0025(Q)	FSTO	RF		RJ-28		101094		
S2.RA-IS.PZR-0025(Q)	STO	RF		RJ-28		101094		

2SV1199	**PORV AIR ACCUMULATOR SUPPLY SOLENOID VALVE**									*AUGMENTED*
205347-3	*No. 2 Unit - React. Cont. & Penetration Area*	*H5*	*N*	*B*	*3WAY*	*SOL*	*1*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.PZR-0025(Q)	FSTO	RF		RJ-28		101094		
S2.RA-IS.PZR-0025(Q)	STO	RF		RJ-28		101094		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW2	**21 SVCE WTR PMP AUTO STRAINER OUTLET CHECK VLV**									
205342-1	*Service Water Nuclear Area*	*C7*	*3*	C	*CK*	*SELF*	*20*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0001(Q)	CTC	Q				100681		
S2.OP-ST.SW-0001(Q)	CTO	Q				100681		

22SW2	**22 SVCE WTR AUTO STRAINER OUTLET CHECK VLV**									
205342-1	*Service Water Nuclear Area*	*E7*	*3*	C	*CK*	*SELF*	*20*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0002(Q)	CTC	Q				100682		
S2.OP-ST.SW-0002(Q)	CTO	Q				100682		

23SW2	**23 SVCE WTR PMP AUTO STRAINER OUTLET CHECK VLV**									
205342-1	*Service Water Nuclear Area*	*G7*	*3*	C	*CK*	*SELF*	*20*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0003(Q)	CTC	Q				100683		
S2.OP-ST.SW-0003(Q)	CTO	Q				100683		

24SW2	**24 SVCE WTR AUTO STRAINER OUTLET CHECK VLV**									
205342-2	*Service Water Nuclear Area*	*C7*	*3*	C	*CK*	*SELF*	*20*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0004(Q)	CTC	Q				100684		
S2.OP-ST.SW-0004(Q)	CTO	Q				100684		

25SW2	**25 SVCE WTR AUTO STRAINER OUTLET CHECK VLV**									
205342-2	*Service Water Nuclear Area*	*E7*	*3*	C	*CK*	*SELF*	*20*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0005(Q)	CTC	Q				100685		
S2.OP-ST.SW-0005(Q)	CTO	Q				100685		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
26SW2	**26 SVCE WTR AUTO STRAINER OUTLET CHECK VLV**									
205342-2	*Service Water Nuclear Area*	*G7*	*3*	*C*	*CK*	*SELF*	*20*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0006(Q)	CTC	Q				100686		
S2.OP-ST.SW-0006(Q)	CTO	Q				100686		
22SW5	**SVCE WTR PMPS DISCH TO 21 NUCLEAR HEADER**							
205342-1	*Service Water Nuclear Area*	*C8*	*3*	*C*	*DCK*	*SELF*	*24*	*O/C*	*O/C*	*Active*
SC.MD-PM.ZZ-0123Q)	CTC	SAM		RJ-29		204056	TP-5	Disassembly & Inspection Method
SC.MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-29		204056	TP-5	Disassembly & Inspection Method
S2.OP-ST.SW-0001(Q)	PS	Q				100681		
S2.OP-ST.SW-0002(Q)	PS	Q				100682		
S2.OP-ST.SW-0003(Q)	PS	Q				100683		
24SW5	**24 SVCE WTR NUCLEAR AREA HEADER CHECK VLV**							
205342-2	*Service Water Nuclear Area*	*F8*	*3*	*C*	*DCK*	*SELF*	*24*	*O/C*	*O/C*	*Active*
SC.MD-PM.ZZ-0123Q)	CTC	SAM		RJ-29		204062	TP-5	Disassembly & Inspection Method
SC.MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-29		204062	TP-5	Disassembly & Inspection Method
S2.OP-ST.SW-0006(Q)	PS	Q				100686		
S2.OP-ST.SW-0004(Q)	PS	Q				100684		
S2.OP-ST.SW-0005(Q)	PS	Q				100685		
21SW13	**21 SVCE WTR MTR UPPER BEARING COOLER OUTLET CHECK VLV**							
205342-1	*Service Water Nuclear Area*	*C4*	*3*	*C*	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*
S2.OP-ST.SW-0001(Q)	CTO	Q				100681		
22SW13	**22 SVCE WTR PMP MTR BEARING COOLER OUTLET CHECK VLV**							
205342-1	*Service Water Nuclear Area*	*E4*	*3*	*C*	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*
S2.OP-ST.SW-0002(Q)	CTO	Q				100682		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SW13	**23 SVCE WTR PMP MTR UPPER BEARING COOLER OUTLET CHECK VLV**									
205342-1	*Service Water Nuclear Area*	*G4*	*3*	*C*	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0003(Q)	CTO	Q				100683		
25SW13	**25 SVCE WTR PMP MTR UPPER BEARING COOLER OUTLET CHECK VLV**							
205342-2	*Service Water Nuclear Area*	*E4*	*3*	*C*	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*
S2.OP-ST.SW-0005(Q)	CTO	Q				100685		
26SW13	**26 SVCE WTR PMP MTR UPPER BEARING COOLER OUTLET CHECK VLV**							
205342-2	*Service Water Nuclear Area*	*G4*	*3*	*C*	*CK*	*SELF*	*0.75*	*O/C*	*O*	*Active*
S2.OP-ST.SW-0006(Q)	CTO	Q				100686		
21SW17	**21 SVCE WTR PMP DISCH HEADER CROSS TIE MTR OPRD VLV**							
205342-1	*Service Water Nuclear Area*	*G7*	*3*	*B*	*BFY*	*MO*	*30*	*O*	*O*	*Active*
S2.OP-ST.RPI-0005(Q)	PIT	2YR				100834		
S2.OP-ST.SW-0007(Q)	STO	Q				100663		
22SW17	**22 SVCE WTR PUMPS DISCH TRAIN 1 CROSS TIE ISLN MTR OPRD VLV**							
205342-2	*Service Water Nuclear Area*	*C7*	*3*	*B*	*BFY*	*MO*	*30*	*O*	*O*	*Active*
S2.OP-ST.RPI-0005(Q)	PIT	2YR				100834		
S2.OP-ST.SW-0007(Q)	STO	Q				100663		
21SW20	**21 SVCE WTR PMP DISCH TO TURBINE GENERATOR AREA MTR OPRD VLV**							
205342-1	*Service Water Nuclear Area*	*F7*	*3*	*B*	*BFY*	*MO*	*30*	*O/C*	*C*	*Active*
S2.OP-ST.RPI-0005(Q)	PIT	2YR				100834		
S2.OP-ST.SW-0007(Q)	STC	Q				100663		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SW20	**22 SVCE WTR PMP DISCH TO 21 SYSTEM HEADER MTR OPRD VLV**									
205342-1	*Service Water Nuclear Area*	*C8*	*3*	B	*BFY*	*MO*	*24*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0005(Q)	PIT	2YR				100834		
S2.OP-ST.SW-0007(Q)	STO	Q				100663		

23SW20	**23 SVCE WTR TURBINE GENERATOR AREA HEADER SUPPLY MTR OPRD VLV**									
205342-2	*Service Water Nuclear Area*	*G7*	*3*	B	*BFY*	*MO*	*30*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0005(Q)	PIT	2YR				100834		
S2.OP-ST.SW-0007(Q)	STC	Q				100663		

24SW20	**24 SVCE WTR NUCLEAR HEADER SUPPLY MTR OPRD VLV**									
205342-2	*Service Water Nuclear Area*	*F7*	*3*	B	*BFY*	*MO*	*24*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0005(Q)	PIT	2YR				100834		
S2.OP-ST.SW-0007(Q)	STO	Q				100663		

21SW21	**21 SVCE WTR DIESEL GEN JACKET WTR COOLERS SUPPLY HDR BTFL MOV**									
205342-3	*Service Water Nuclear Area*	*G6*	*3*	B	*BFY*	*MO*	*8*	*O*	*O*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		

22SW21	**22 SVCE WTR DIESEL GEN JACKET WTR COOLERS SUPPLY HDR BTFL MOV**									
205342-3	*Service Water Nuclear Area*	*G6*	*3*	B	*BFY*	*MO*	*8*	*O*	*O*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0001(Q)	PIT	2YR				100208		

21SW22	**21 SVCE WTR NUCLEAR HDR STOP MTR OPRD BTFL VLV**									
205342-3	*Service Water Nuclear Area*	*F5*	*3*	B	*BFY*	*MO*	*24*	*O*	*O*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SW22	**22 SVCE WTR NUCLEAR HEADER SUPPLY MTR OPRD BTFL VLV**									
205342-3	*Service Water Nuclear Area*	*F5*	*3*	B	*BFY*	*MO*	*24*	*O*	*O*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		

21SW23	**21 SVCE WTR NUCLEAR HDR CROSS-CONNECT TO 22 NUCLEAR HDR BTFL MOV**									
205342-3	*Service Water Nuclear Area*	*F5*	*3*	B	*BFY*	*MO*	*24*	*C*	*C*	*Passive*

S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0007(Q)	STC	Q				100663		

22SW23	**22 SVCE WTR NUCLEAR HEADER CROSS-CONN MTR OPRD BTFL VLV**									
205342-3	*Service Water Nuclear Area*	*F6*	*3*	B	*BFY*	*MO*	*24*	*C*	*C*	*Active*

S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0007(Q)	STC	Q				100663		

2SW26	**2 SVCE WTR DISCH TO TURB GEN AREA MTR OPRD BTFL VLV**									
205342-2	*Service Water Nuclear Area*	*G10*	*3*	B	*BFY*	*MO*	*30*	*O*	*C*	*Active*

S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.SW-0011(Q)	STC	RF		RJ-30		100347		

21SW34	**21 SVCE WTR DIESEL GEN 2A JACKET WTR CLR SUPPLY HDR CHECK VLV**									
205342-3	*Service Water Nuclear Area*	*H7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

S2.OP-ST.DG-0001(Q)	CTO	Q				100148		

22SW34	**22 SVCE WTR DIESEL GEN 2A JACKET WTR CLR SUPPLY HDR CHECK VLV**									
205342-3	*Service Water Nuclear Area*	*G7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

S2.OP-ST.DG-0001(Q)	CTO	Q				100148		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW36	**21 SVCE WTR DIESEL GEN 2B JACKET WTR CLR SUPPLY HDR CHECK VLV**									
205342-3	*Service Water Nuclear Area*	*G7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0002(Q)	CTO	Q				100149		
22SW36	**22 SVCE WTR DIESEL GEN 2B JACKET WTR CLR SUPPLY HDR CHECK VLV**							
205342-3	*Service Water Nuclear Area*	*F7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*
S2.OP-ST.DG-0002(Q)	CTO	Q				100149		
21SW38	**21 SVCE WTR DIESEL GEN 2C JACKET WTR CLR SUPPLY HDR CHECK VLV**							
205342-3	*Service Water Nuclear Area*	*F7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*
S2.OP-ST.DG-0003(Q)	CTO	Q				100150		
22SW38	**22 SVCE WTR DIESEL GEN 2C JACKET WTR CLR SUPPLY HDR CHECK VLV**							
205342-3	*Service Water Nuclear Area*	*F7*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*
S2.OP-ST.DG-0003(Q)	CTO	Q				100150		
21SW39	**21 SVCE WTR DIESEL GEN 2A JACKET WTR CLR INLET AIR OPRD BALL VLV**							
205342-3	*Service Water Nuclear Area*	*H8*	*3*	B	*BALL*	*AIR*	*6*	*C*	*O*	*Active*
S2.OP-ST.DG-0001(Q)	FSTO	Q				100148		
S2.OP-ST.DG-0001(Q)	STO	Q				100148		
22SW39	**22 SVCE WTR DIESEL GEN 2B JACKET WTR CLR INLET AIR OPRD BALL VLV**							
205342-3	*Service Water Nuclear Area*	*G8*	*3*	B	*BALL*	*AIR*	*6*	*C*	*O*	*Active*
S2.OP-ST.DG-0002(Q)	FSTO	Q				100149		
S2.OP-ST.DG-0002(Q)	STO	Q				100149		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SW39	**23 SVCE WTR DIESEL GEN 2C JACKET WTR CLR INLET AIR OPRD BALL VLV**									
205342-3	*Service Water Nuclear Area*	*F8*	*3*	B	*BALL*	*AIR*	*6*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.DG-0003(Q)	FSTO	Q				100150		
S2.OP-ST.DG-0003(Q)	STO	Q				100150		
21SW44	**21 SVCE WTR DIESEL GEN 2A LUBE OIL CLR OUTLET CHECK VLV**							
205342-3	*Service Water Nuclear Area*	*E8*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*
S2.OP-ST.DG-0001(Q)	CTO	Q				100148		
22SW44	**22 SVCE WTR DIESEL GEN 2B LUBE OIL CLR OUTLET CHECK VLV**							
205342-3	*Service Water Nuclear Area*	*D8*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*
S2.OP-ST.DG-0002(Q)	CTO	Q				100149		
23SW44	**23 SVCE WTR DIESEL GEN 2C LUBE OIL COOLER OUTLET CHECK VLV**							
205342-3	*Service Water Nuclear Area*	*C8*	*3*	C	*DCK*	*SELF*	*6*	*C*	*O*	*Active*
S2.OP-ST.DG-0003(Q)	CTO	Q				100150		
21SW47	**21 SVCE WTR DIESEL GEN LUBE OIL COOLERS DISCH HDR CHECK VLV**							
205342-3	*Service Water Nuclear Area*	*E9*	*3*	C	*DCK*	*SELF*	*8*	*C*	*O*	*Active*
SC.MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-29		204058	TP-5	Disassembly & Inspection Method
S2.OP-ST.DG-0001(Q)	PS	Q				100148		
22SW47	**22 SVCE WTR DIESEL GEN LUBE OIL COOLERS TO 22 DISCH HDR CHECK VLV**							
205342-3	*Service Water Nuclear Area*	*D9*	*3*	C	*DCK*	*SELF*	*8*	*C*	*O*	*Active*
SC.MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-29		204059	TP-5	Disassembly & Inspection Method
S2.OP-ST.DG-0001(Q)	PS	Q				100148		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW51	**21 SVCE WTR CONTAINMENT FAN COIL UNIT NUCLEAR HDR INLET CHECK VLV**									
205342-6	*Service Water Nuclear Area*	*H1*	*3*	C	*DCK*	*SELF*	*16*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PM.ZZ-0123(Q)	CTC	SAM		RJ-31		204055	TP-5	Disassembly & Inspection Method
S2.OP-ST.SW-0010(Q)	CTO	Q				101214		
22SW51	**22 SVCE WTR NUCLEAR HDR TO REACTOR CONTAINMENT CHECK VLV**							
205342-5	*Service Water Nuclear Area*	*G3*	*3*	C	*DCK*	*SELF*	*16*	*O*	*O/C*	*Active*
SC.MD-PM.ZZ-0123(Q)	CTC	SAM		RJ-31		204060	TP-5	Disassembly & Inspection Method
S2.OP-ST.SW-0010(Q)	CTO	Q				101214		
21SW53	**21 SVCE WTR CONTAINMENT FAN COIL UNIT COMMON HDR INLET CHECK VLV**							
205342-6	*Service Water Nuclear Area*	*E1*	*3*	C	*DCK*	*SELF*	*10*	*O*	*O/C*	*Active*
SC.RA-IS.ZZ-0007(Q)	CTC	Q				290328		
S2.OP-ST.SW-0010(Q)	CTO	Q				101214		
22SW53	**24 SVCE WTR CONTAINMENT FAN COIL UNIT COMMON INLET HDR CHECK VLV**							
205342-6	*Service Water Nuclear Area*	*D1*	*3*	C	*DCK*	*SELF*	*10*	*O*	*O/C*	*Active*
SC.RA-IS.ZZ-0007(Q)	CTC	Q				290329		
S2.OP-ST.SW-0010(Q)	CTO	Q				101214		
21SW57	**21 SVCE WTR CONTAINMENT FAN COIL UNIT ISLN AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*H2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
22SW57	**22 SVCE WTR CONTAINMENT FAN COIL UNIT ISLN AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*F2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SW57	**23 SVCE WTR CONTAINMENT FAN COIL UNIT ISLN AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*E2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
24SW57	**24 SVCE WTR CONTAINMENT FAN COIL UNIT ISLN AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*C2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
25SW57	**25 SVCE WTR CONTAINMENT FAN COIL UNIT ISLN AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*B2*	*3*	B	*GB*	*AIR*	*8*	*M*	*O*	*Active*
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
21SW58	**21 SVCE WTR CONTAINMENT FAN COIL UNIT INLET AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*H3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		
22SW58	**22 SVCE WTR CONTAINMENT FAN COIL UNIT INLET AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*F3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SW58	**23 SVCE WTR CONTAINMENT FAN COIL UNIT INLET AIR OPRD BTFL VLV**									
205342-6	*Service Water Nuclear Area*	*E3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		

24SW58	**24 SVCE WTR CONTAINMENT FAN COIL UNIT INLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*C3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		

25SW58	**25 SVCE WTR CONTAINMENT FAN COIL UNIT INLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*B3*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		

21SW65	**21 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*H7*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
S2.OP-ST.SW-0010(Q)	STO	Q				101214		

22SW65	**22 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*F7*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
S2.OP-ST.SW-0010(Q)	STO	Q				101214		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SW65	**23 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*E6*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
S2.OP-ST.SW-0010(Q)	STO	Q				101214		
24SW65	**24 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*C6*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
S2.OP-ST.SW-0010(Q)	STO	Q				101214		
25SW65	**25 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*B7*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O*	*Active*
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
S2.OP-ST.SW-0010(Q)	STO	Q				101214		
21SW72	**21 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*H8*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		
22SW72	**22 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**							
205342-6	*Service Water Nuclear Area*	*F7*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SW72	**23 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*E7*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		

24SW72	**24 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*C8*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		

25SW72	**25 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*B8*	*2*	B	*BFY*	*AIR*	*10*	*O*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		

21SW77	**21 SVCE WTR CONTMT FAN COIL UNIT COMMON OUTLET HDR CHK VLV**									
205342-6	*Service Water Nuclear Area*	*E10*	*3*	C	*DCK*	*SELF*	*10*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	CTO	Q				101214		

22SW77	**22 SVCE WTR CONTMT FAN COIL UNIT COMMON OUTLET HDR CHK VLV**									
205342-6	*Service Water Nuclear Area*	*D10*	*3*	C	*DCK*	*SELF*	*10*	*O*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	CTO	Q				101214		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW79	**21 SVCE WTR NUCLEAR HDR BYPASS TO CIRC WTR DISCH CHECK VLV**									
205342-3	*Service Water Nuclear Area*	*C11*	*3*	C	*DCK*	*SELF*	*24*	O	O	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PM.ZZ-0123Q)	CTO	RF		RJ-32		204052	TP-5	Disassembly & Inspection Method
S2.OP-ST.SW-0009(Q)	PS	Q				101022		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SW79	**22 SVCE WTR NUCLEAR HDR BYPASS TO CIRC WATER DISCH CHECK VLV**									
205342-3	*Service Water Nuclear Area*	*C10*	*3*	C	*DCK*	*SELF*	*24*	O	O	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PM.ZZ-0123Q)	CTO	RF		RJ-32		204051	TP-5	Disassembly & Inspection Method
S2.OP-ST.SW-0009(Q)	PS	Q				101022		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW92	**21 SVCE WTR CHILLER CONDENSER INLET AIR OPRD GLB VLV**									
205342-5	*Service Water Nuclear Area*	*F4*	*3*	B	*GB*	*AIR*	*4*	C	O	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0009(Q)	FSTO	Q				101022		
S2.OP-ST.SW-0009(Q)	STO	Q				101022		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SW92	**22 SVCE WTR CHILLER CONDENSER INLET AIR OPRD VLV**									
205342-5	*Service Water Nuclear Area*	*E4*	*3*	B	*GB*	*AIR*	*4*	C	O	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0009(Q)	FSTO	Q				101022		
S2.OP-ST.SW-0009(Q)	STO	Q				101022		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
23SW92	**23 SVCE WTR CHILLER CONDENSER INLET AIR OPRD VLV**									
205342-5	*Service Water Nuclear Area*	*D4*	*3*	B	*GB*	*AIR*	*4*	C	O	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0009(Q)	FSTO	Q				101022		
S2.OP-ST.SW-0009(Q)	STO	Q				101022		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW99	**21 SVCE WTR CHILLER CONDENSER RECIRC PMP DISCH CHECK VLV**									
205342-5	*Service Water Nuclear Area*	*F6*	*3*	C	*CK*	*SELF*	*4*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0009(Q)	CTC	Q				101022		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SW99	**22 SVCE WTR CHILLER CONDENSER RECIRC PMP DISCH CHECK VLV**									
205342-5	*Service Water Nuclear Area*	*D6*	*3*	C	*CK*	*SELF*	*4*	*O/C*	*C*	*Active*
23SW99	**23 SVCE WTR CHILLER CONDENSER RECIRC PMP DISCH CHECK VLV**									
205342-5	*Service Water Nuclear Area*	*C6*	*3*	C	*CK*	*SELF*	*4*	*O/C*	*C*	*Active*
21SW122	**21 SVCE WTR CMPNT CLG HT EXCHG INLET AIR OPRD BTFL VLV**									
205342-3	*Service Water Nuclear Area*	*B3*	*3*	B	*BFY*	*AIR*	*20*	*M*	*O/C*	*Active*
22SW122	**22 SVCE WTR CMPNT CLG HT EXCHG INLET CONT VLV**									
205342-4	*Service Water Nuclear Area*	*H6*	*3*	B	*BFY*	*AIR*	*20*	*M*	*O/C*	*Active*
21SW129	**21 SVCE WTR CMPNT CLG PMP ROOM COOLER INLET AIR OPRD GLB VLV**									
205342-3	*Service Water Nuclear Area*	*C4*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*
22SW129	**22 SVCE WTR CMPNT CLG PMP ROOM CLR INLET AIR OPRD VLV**									
205342-4	*Service Water Nuclear Area*	*G6*	*3*	B	*GB*	*AIR*	*2*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0009(Q)	CTC	Q				101022		
S2.OP-ST.SW-0009(Q)	CTC	Q				101022		
S2.OP-ST.SW-0008(Q)	FSTC	Q				101021		
S2.OP-ST.SW-0008(Q)	FSTC	Q				101021		
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SW137	**2 SVCE WTR 21 AUX FDWTR PMP RM CLR INLET AIR OPRD GLB VLV**									
205342-3	*Service Water Nuclear Area*	*C4*	*3*	B	*GB*	*AIR*	*2*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW145	**21 SVCE WTR CONT SPRAY PMP ROOM CLR INLET AIR OPRD GLB VLV**									
205342-3	*Service Water Nuclear Area*	*D4*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SW145	**22 SVCE WTR CONT SPRAY PMP ROOM CLR INLET AIR OPRD VLV**									
205342-4	*Service Water Nuclear Area*	*B7*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW153	**21 SVCE WTR RHR PMP ROOM COOLER INLET AIR OPRD GLB VLV**									
205342-3	*Service Water Nuclear Area*	*G4*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SW153	**22 SVCE WTR RHR PMP ROOM CLR INLET AIR OPRD VLV**									
205342-4	*Service Water Nuclear Area*	*F6*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW161	**21 SERVICE WATER COOLER HEADER TO AUX FEEDWATER STOP BUTTERFLY VALVE**									
205342-4	*Service Water Nuclear Area*	*G9*	*3*	B	*BFY*	*MAN*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0004(Q)	FSO	Q				100655		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SW161	**21 SERVICE WATER COOLER HEADER TO AUX FEEDWATER STOP BUTTERFLY VALVE**									
205342-4	*Service Water Nuclear Area*	*G9*	*3*	B	*BFY*	*MAN*	*8*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.AF-0004(Q)	FSO	Q				100655		
2SW163	**2 SVCE WTR 22 SAFETY INJ PMP LUBE OIL CLR AIR OPRD VLV**							
205342-3	*Service Water Nuclear Area*	*G4*	*3*	B	*GB*	*AIR*	*1.5*	*C*	*O*	*Active*
S2.OP-ST.SJ-0002(Q)	FSTO	Q				100670		
S2.OP-ST.SJ-0002(Q)	STO	Q				100670		
2SW169	**2 SVCE WTR 21 SAFETY INJ PMP LUBE OIL CLR AIR OPRD GLB VLV**							
205342-4	*Service Water Nuclear Area*	*C7*	*3*	B	*GB*	*AIR*	*1.5*	*C*	*O*	*Active*
S2.OP-ST.SJ-0001(Q)	FSTO	Q				100669		
S2.OP-ST.SJ-0001(Q)	STO	Q				100669		
2SW175	**2 SVCE WTR 21 SAFETY INJ PMP ROOM CLR INLET AIR OPRD VLV**							
205342-4	*Service Water Nuclear Area*	*C7*	*3*	B	*GB*	*AIR*	*2*	*C*	*O*	*Active*
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		
2SW185	**2 SVCE WTR 21 CHG PMP CLRS INLET AIR OPRD VLV**							
205342-4	*Service Water Nuclear Area*	*D7*	*3*	B	*GB*	*AIR*	*1.5*	*C*	*O*	*Active*
S2.OP-ST.CVC-0003(Q)	FSTO	Q				100676		
S2.OP-ST.CVC-0003(Q)	STO	Q				100676		
2SW191	**2 SVCE WTR 21 CHG PMP ROOM CLR INLET AIR OPRD VLV**							
205342-4	*Service Water Nuclear Area*	*D7*	*3*	B	*GB*	*AIR*	*2*	*O/C*	*O*	*Active*
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2SW199	**2 SVCE WTR CHARGING PMP COOLERS OUTLET AIR OPRD GLB VLV**									
205342-3	*Service Water Nuclear Area*	*E4*	*3*	B	*GB*	*AIR*	*1.5*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CVC-0004(Q	FSTO	Q				100677		
S2.OP-ST.CVC-0004(Q)	STO	Q				100677		

2SW205	**2 SVCE WTR CHG PMP 22 ROOM CLR INLET AIR OPRD VLV**									
205342-3	*Service Water Nuclear Area*	*E4*	*3*	B	*GB*	*AIR*	*2*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		

2SW213	**2 SVCE WTR CHG PMP 23 ROOM CLR INLET AIR OPRD VLV**									
205342-4	*Service Water Nuclear Area*	*B7*	*3*	B	*GB*	*AIR*	*1.5*	*O/C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0014(Q)	FSTO	Q				100569		
S2.OP-ST.SW-0014(Q)	STO	Q				100569		

21SW223	**21 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*H9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		

22SW223	**22 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*F9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		

23SW223	**23 SVCE WTR CONTAINMENT FAN COIL UNIT ISLN AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*E9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
24SW223	**24 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*C9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		

25SW223	**25 SVCE WTR CONTAINMENT FAN COIL UNIT OUTLET AIR OPRD VLV**									
205342-6	*Service Water Nuclear Area*	*B9*	*3*	B	*GB*	*AIR*	*8*	*O/C*	*O/C*	*Active*

S2.OP-ST.SW-0010(Q)	FSTC	Q				101214		

2SW308	**2 SVCE WTR PRESS CONT HDR CONTROL BALL VLV**									
205342-1	*Service Water Nuclear Area*	*B6*	*3*	B	*BALL*	*AIR*	*8*	*C*	*C*	*Passive*

								No inservice testing required for this component.

2SW311	**2 SVCE WTR PRESS CONT HDR CONTROL BALL VLV**									
205342-2	*Service Water Nuclear Area*	*H4*	*3*	B	*BALL*	*AIR*	*8*	*C*	*C*	*Passive*

								No inservice testing required for this component

21SW532	**21 SVCE WTR CONTAINMENT FAN COIL UNIT NUCLEAR HDR INLET CHECK VLV**									
205342-6	*Service Water Nuclear Area*	*H1*	*3*	C	*DCK*	*SELF*	*16*	*O*	*O/C*	*Active*

SC.MD-PM.ZZ-0123(Q)	CTC	SAM		RJ-31		204869	TP-5	Disassembly & Inspection Method
S2.OP-ST.SW-0010(Q)	CTO	Q				101214		

22SW532	**22 SVCE WTR NUCLEAR HDR TO REACTOR CONTAINMENT CHECK VLV**									
205342-5	*Service Water Nuclear Area*	*G3*	*3*	C	*DCK*	*SELF*	*16*	*O*	*O/C*	*Active*

SC.MD-PM.ZZ-0123(Q)	CTC	SAM		RJ-31		204887	TP-5	Disassembly & Inspection Method
S2.OP-ST.SW-0010(Q)	CTO	Q				101214		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW534	**21 SERVICE WATER ACCUMULATOR VESSEL DISCHARGE ISOLATION VLV**									
205342-7	*Service Water Nuclear Area*	*F9*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		
S2.OP-ST.SW-0010(Q)	STO	Q				101214		

22SW534	**22 SERVICE WATER ACCUMULATOR VESSEL DISCHARGE ISOLATION VLV**									
205342-7	*Service Water Nuclear Area*	*B9*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		
S2.OP-ST.SW-0010(Q)	STO	Q				101214		

21SW535	**21 SERVICE WATER ACCUMULATOR VESSEL DISCHARGE ISOLATION VLV**									
205342-7	*Service Water Nuclear Area*	*F9*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		
S2.OP-ST.SW-0010(Q)	STO	Q				101214		

22SW535	**22 SERVICE WATER ACCUMULATOR VESSEL DISCHARGE ISOLATION VLV**									
205342-7	*Service Water Nuclear Area*	*B9*	*3*	B	*BFY*	*AIR*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	FSTO	Q				101214		
S2.OP-ST.SW-0010(Q)	STC	Q				101214		
S2.OP-ST.SW-0010(Q)	STO	Q				101214		

21SW536	**21 NUCLEAR SUPPLY HEADER COLUMN SEPARATION PROTECTION CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*F8*	*3*	C	*DCK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	CTC	Q				101214		
SC.MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-33		204888	TP-5	Disassembly & Inspection Method

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22SW536	**22 NUCLEAR SUPPLY HEADER COLUMN SEPARATION PROTECTION CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*C8*	*3*	*C*	*DCK*	*SELF*	*10*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0010(Q)	CTC	Q				101214		
SC.MD-PM.ZZ-0123(Q)	CTO	SAM		RJ-33		204889	TP-5	Disassembly & Inspection Method

21SW596	**21 SERVICE WATER ACCUMULATOR VESSEL WATER FILL CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*G5*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

S2.OP-ST.SW-0015(Q)	CTC	Q				101214		

22SW596	**22 SERVICE WATER ACCUMULATOR VESSEL WATER FILL CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*C5*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

S2.OP-ST.SW-0015(Q)	CTC	Q				101214		

21SW597	**21 SERVICE WATER ACCUMULATOR VESSEL WATER FILL CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*G5*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

S2.OP-ST.SW-0015(Q)	CTC	Q				101214		

22SW597	**22 SERVICE WATER ACCUMULATOR VESSEL WATER FILL CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*C5*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

S2.OP-ST.SW-0015(Q)	CTC	Q				101214		

2SW626	**21 SVCE WTR ACCUMULATOR VESSEL RELIEF VALVE**									
205342-7	*Service Water*	*H2*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				204886		

2SW628	**22 SVCE WTR ACCUMULATOR VESSEL RELIEF VALVE**									
205342-7	*Service Water*	*D2*	*3*	*C*	*RV*	*SELF*	*1*	*C*	*O*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				204925		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
21SW640	**21 SERVICE WATER ACCUMULATOR VESSEL NITROGEN FILL CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*H4*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.SW-0015(Q)	CTC	Q				101214		

22SW640	**22 SERVICE WATER ACCUMULATOR VESSEL NITROGEN FILL CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*D4*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

S2.OP-ST.SW-0015(Q)	CTC	Q				101214		

21SW641	**21 SERVICE WATER ACCUMULATOR VESSEL NITROGEN FILL CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*H4*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

S2.OP-ST.SW-0015(Q)	CTC	Q				101214		

22SW641	**22 SERVICE WATER ACCUMULATOR VESSEL NITROGEN FILL CHECK VLV**									
205342-7	*Service Water Nuclear Area*	*D4*	*3*	*C*	*CK*	*SELF*	*1*	*C*	*C*	*Active*

S2.OP-ST.SW-0015(Q)	CTC	Q				101214		

2VC1	**2 CONTMT VENT PURGE SUPPLY LINE OUTBD ISLN AIR OPRD BTFL VLV**									
205338-2	*Reactor Containment - Ventilation*	*D3*	*2*	*A*	*BFY*	*AIR*	*36*	*O/C*	*C*	*Active*

S2.OP-ST.CBV-0002(Q)	FSTC	CS	CS-44			100843		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290777		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CBV-0002(Q)	STC	CS	CS-44			100843		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2VC2	**2 CONTMT VENT PURGE SUPPLY ISLN AIR OPRD BTFL VLV**									
205338-2	*Reactor Containment - Ventilation*	*D2*	*2*	*A*	*BFY*	*AIR*	*36*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0002(Q)	FSTC	CS	CS-45			100843		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290778		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0002(Q)	STC	CS	CS-45			100843		

2VC3	**2 CONTMT VENT PURGE EXH LINE INBD ISLN AIR OPRD BTFL VLV**									
205338-2	*Reactor Containment - Ventilation*	*E2*	*2*	*A*	*BFY*	*AIR*	*36*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0002(Q)	FSTC	CS	CS-45			100843		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290780		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0002(Q)	STC	CS	CS-45			100843		

2VC4	**2 CONTMT VENT PURGE EXH LINE OUTBD ISLN AIR OPRD BTFL VLV**									
205338-2	*Reactor Containment - Ventilation*	*E3*	*2*	*A*	*BFY*	*AIR*	*36*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0002(Q)	FSTC	CS	CS-44			100843		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290781		
S2.OP-ST.RPI-0003(Q)	PIT	2YR				100873		
S2.OP-ST.CBV-0002(Q)	STC	CS	CS-44			100843		

2VC5	**2 CONTMT VENT CONT PRESS TEST INBD AIR OPRD BTFL VLV**									
205338-2	*Reactor Containment - Ventilation*	*D3*	*2*	*A*	*BFY*	*AIR*	*10*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290782		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2VC6	**2 CONTMT VENT CONT PRESS TEST OUTBD AIR OPRD BTFL VLV**									
205338-2	*Reactor Containment - Ventilation*	*D2*	*2*	*A*	*BFY*	*AIR*	*10*	*O/C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290783		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

2VC7	**2 CONTMT VENT RAD MONITORING SYS OUTLET AIR OPRD GLB VLV**									
205338-1	*Reactor Containment - Ventilation*	*H6*	*2*	*A*	*GB*	*AIR*	*0.75*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290784		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

2VC8	**2 CONTMT VENT RAD MONITORING SYS OUTBD OUTLET AIR OPRD GLB VLV**									
205338-1	*Reactor Containment - Ventilation*	*H5*	*2*	*A*	*GB*	*AIR*	*0.75*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290785		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

2VC9	**2 CONTMT VENT RAD MONITORING SYS OUTLET AIR OPRD GLB VLV**									
205338-1	*Reactor Containment - Ventilation*	*H6*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290786		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2VC10	**2 CONTMT VENT RAD MONITORING SYS OUTBD OUTLET AIR OPRD GLB VLV**									
205338-1	*Reactor Containment - Ventilation*	*H5*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290787		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2VC11	**2 CONTMT VENT RAD MONITORING SYS SAMPLE INLET AIR OPRD GLB VLV**									
205338-1	*Reactor Containment - Ventilation*	*G6*	*2*	*A*	*GB*	*AIR*	*0.75*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290788		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2VC12	**2 CONTMT VENT RAD MONITORING SYS OUTBD INLET AIR OPRD GLB VLV**									
205338-1	*Reactor Containment - Ventilation*	*G5*	*2*	*A*	*GB*	*AIR*	*0.75*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290789		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2VC13	**2 CONTMT VENT RAD MONITORING SYS INLET AIR OPRD GLB VLV**									
205338-1	*Reactor Containment - Ventilation*	*G6*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290792		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2VC10	2 CONTMT VENT RAD MONITORING SYS OUTBD OUTLET AIR OPRD GLB VLV									
205338-1	Reactor Containment - Ventilation	H5	2	A	GB	AIR	0.75	C	C	Passive
2VC11	2 CONTMT VENT RAD MONITORING SYS SAMPLE INLET AIR OPRD GLB VLV									
205338-1	Reactor Containment - Ventilation	G6	2	A	GB	AIR	0.75	O	C	Active
2VC12	2 CONTMT VENT RAD MONITORING SYS OUTBD INLET AIR OPRD GLB VLV									
205338-1	Reactor Containment - Ventilation	G5	2	A	GB	AIR	0.75	O	C	Active
2VC13	2 CONTMT VENT RAD MONITORING SYS INLET AIR OPRD GLB VLV									
205338-1	Reactor Containment - Ventilation	G6	2	A	GB	AIR	0.75	C	C	Passive

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290787		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290788		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290789		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290792		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2VC14	**2 CONTMT VENT RAD MONITORING SYS OUTBD INLET AIR OPRD GLB VLV**									
205338-1	*Reactor Containment - Ventilation*	*G5*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18M0				290793		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

21VC17	**21 POST ACC SAMP PEN 36 OUTBD AIR SAMPLE SPLY AIR OPRD GATE VLV**									
205344-3	*Sampling*	*G9*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290794		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

22VC17	**22 POST ACC SAMP PEN 30 AIR SAMPLE SPLY AIR OPRD GATE VLV**									
205344-3	*Sampling*	*E9*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290790		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

21VC18	**21 POST ACC SAMP PEN 36 OUTBD AIR SAMPLE RETURN AIR OPRD GATE VLV**									
205344-3	*Sampling*	*F9*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290796		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22VC18	**22 POST ACC SAMP PEN 30 OUTBD AIR SAMPLE RETURN AIR OPRD GATE VLV**									
205344-3	*Sampling*	*E9*	*2*	A	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290798		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

21VC19	**21 POST ACC SAMP PEN 36 INBD AIR SAMPLE SPLY AIR OPRD GATE VLV**									
205344-3	*Sampling*	*G10*	*2*	A	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290795		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

22VC19	**22 POST ACC SAMP PEN 30 INBD AIR SAMPLE SPLY AIR OPRD GATE VLV**									
205344-3	*Sampling*	*E10*	*2*	A	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290791		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

21VC20	**21 POST ACC SAMP PEN 36 INBD AIR SAMPLE RETURN AIR OPRD GATE VLV**									
205344-3	*Sampling*	*F10*	*2*	A	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290797		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2 OP-ST.CBV-0001(Q)	STC	Q				100845		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
22VC20	**22 POST ACC SAMP PEN 30 INBD AIR SAMPLE RETURN AIR OPRD GATE VLV**									
205344-3	*Sampling*	*E10*	*2*	*A*	*GB*	*AIR*	*0.75*	*C*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.CBV-0001(Q)	FSTC	Q				100845		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290799		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.CBV-0001(Q)	STC	Q				100845		

2WL12	**2 RAD WST LQD RC DR PMP DISCH ISOL AIR OPRD DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*B7*	*2*	*A*	*DIA*	*AIR*	*3*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290800		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2WL13	**2 RAD WST LQD RC DR PMP DISCH AIR OPRD ISOL DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*B7*	*2*	*A*	*DIA*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290801		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2WL16	**2 RAD WST LQD CONTAINMENT SUMP PMP DISCH TO WST AIR OPRD DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*B7*	*2*	*A*	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290802		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2WL17	**2 RAD WST LQD CONTAINMENT SUMP PMP DISCH TO WST AIR OPRD DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*B8*	*2*	*A*	*GB*	*AIR*	*3*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290803		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2WL96	**2 RAD WST LQD RC DR TK TO GAS ANALYZER AIR OPRD DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*F7*	*2*	*A*	*DIA*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290804		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2WL97	**2 RAD WST LQD RC DR TK TO GAS ANALYZER AIR OPRD DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*F8*	*2*	*A*	*DIA*	*AIR*	*0.75*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290805		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2WL98	**2 RAD WST LQD RC DR TK TO VENT HDR AIR OPRD DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*F7*	*2*	*A*	*DIA*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290806		
S2.OP-ST.RPI-0002(Q)	PIT	2YR				100207		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2WL99	**2 RAD WST LQD RC DR TK TO VENT HDR AIR OPRD DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*F9*	*2*	*A*	*DIA*	*AIR*	*1*	*O*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290807		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2WL108	**2 RAD WST LQD N2 SUPPLY TO RC DR TK AIR OPRD DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*G9*	*2*	*A*	*DIA*	*AIR*	*1*	*C*	*C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290808		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2WL190	**2 RAD WST LQD REFUEL CANAL INLET DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*F3*	*2*	*A*	*DIA*	*MAN*	*3*	*LC*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290757		

2WL191	**2 RAD WST LQD REFUEL WTR PURIFICATION PMP SUCT DIAPH VLV**									
205339-3	*Waste Disposal Liquid*	*E2*	*2*	*A*	*DIA*	*MAN*	*3*	*LC*	*C*	*Passive*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290755		

2WL475	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**									*AUGMENTED*
205339-3	*Waste Disposal Liquid*	*C7*	*N*	*C*	*RV*	*SELF*	*1*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 2EC-3612 , see PMCR 970320324

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2WL476	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**									
205339-3	*Waste Disposal Liquid*	*C7*	*2*	*A/C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290861		DCP 2EC-3612 , see BPAR 970715187
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 2EC-3612 , see PMCR 970320324

2WL477	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**									*AUGMENTED*
205339-3	*Waste Disposal Liquid*	*B7*	*N*	*C*	*RV*	*SELF*	*1*	*C*	*O*	*Active*

SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 2EC-3612 , see PMCR 970320324

2WL478	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**									
205339-3	*Waste Disposal Liquid*	*B8*	*2*	*A/C*	*RV*	*SELF*	*1*	*C*	*O/C*	*Active*

S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290862		DCP 2EC-3612 , see BPAR 970715187
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 2EC-3612 , see PMCR 970320324

2WR80	**2 REACT COOL PZR RLF TANK PRIMARY WTR SUPPLY AIR OPRD DIAPH VLV**									
205301-1	*Reactor Coolant*	*C10*	*2*	*A*	*DIA*	*AIR*	*3*	*O/C*	*C*	*Active*

S2.OP-ST.ZZ-0003(Q)	FSTC	Q				100665		
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290809		
S2.OP-ST.RPI-0004(Q)	PIT	2YR				100872		
S2.OP-ST.ZZ-0003(Q)	STC	Q				100665		

2WR81	**2 REACT COOL PZR RLF TK PRIMARY WTR SUPPLY LINE CHECK VLV**									
205301-1	*Reactor Coolant*	*C9*	*2*	*A/C*	*CK*	*SELF*	*3*	*O/C*	*O/C*	*Active*

S2.RA-IS.ZZ-0002(Q)	CTC	RF		RJ-34		290810		
S2.OP-ST.ZZ-0003(Q)	CTO	Q				100665	TP-5	Disassembly & Inspection Method
S2.RA-IS.ZZ-0002(Q)	LJ	18MO				290810		

VALVE NO / P + ID No	VALVE DESCRIPTION / P + ID Name	Drawing Coordinates	ASME Class	IST Cat	Valve Type	Actuator Type	Valve Size	Normal Position	Safety Position	Active/Passive Classification
2WR191	**CONTAINMENT ISO VLV OVERPRESSURE PROTECTION RELIEF VALVE**									*AUGMENTED*
205301-1	*Reactor Coolant*	*C8*	*N*	C	*RV*	*SELF*	*1*	*C*	*O*	*Active*

TEST PROC	TEST TYPE	TEST FREQ.	C.S. JUST.	R.O. JUST.	REL. REQ.	RECUR. TASK	TECH. POS.	COMMENTS
SC.MD-PT.ZZ-0007(Q)	RV	10YR				(later)		DCP 2EC-3612 , see PMCR 970320324

ATTACHMENT 1

TECHNICAL POSITIONS

Salem Units 1 and 2 Inservice Test Program

TECHNICAL POSITION INDEX

NUMBER	APPLICABLE COMPONENTS
TP-1	Power-Operated Valve Stroke Testing
TP-2	Pump Full Flow Testing
TP-3	Pump Fixed Reference Value Variance Attachment 1 SJ Pump Flow Instrumentation
TP-4	Seat Leakage Testing Per 10CFR50 Appendix J
TP-5	Check Valve Sample Disassembly
TP-6	Skid Mounted Components

Salem Units 1 and 2 Inservice Test Program

Technical Position (TP-1)

I. **Title**

Power-Operated Valve Stroke Testing:
Reference Values and Limiting Values of Full-Stroke Time

II. **Issue Discussion**

a) OM-10 requires that an initial reference value be established for each valve or group of valves. The acceptance criteria is an allowable percentage above or below (±) the reference value. Per OM-10, Section 3.3, reference values will be determined from the results of past inservice tests. These tests are performed under conditions as near as practicable to those expected during subsequent inservice testing.

b) OM-10 specifies stroke time acceptance criteria in Section 4.2.1.8. The limiting values of stroke time testing are to be established by the owner according to Section 4.2.1.4.

III. **Reference Values (OM-10, Sections 3.3 and 3.4)**

a) According to OM-10, Section 3.4, when a valve or its control system has been replaced, repaired or has undergone maintenance* that could affect the valve's performance, a new reference value will be determined or the previous value reconfirmed by an inservice test run prior to the time the valve is returned to service or immediately if not removed from service, to demonstrate that performance parameters which could be affected by the replacement, repair, or maintenance are within acceptable limits. Verification that the new values represent acceptable operation will be documented in the record of tests.

b) Deviations between the previous and new reference values will be identified and analyzed. This analysis will review the Δt (previous minus new) between the reference values and determine whether this change is consistent with any changes that the valve or its control system has undergone. If the changes in stroke times are consistent with the changes that the valve or its control system has undergone, the new reference value will be applied to the valve. If the changes in stroke times are inconsistent with the changes that the valve or its control system has undergone, the IST Implementation Manager may elect to perform further evaluations and determine if the previous value should remain as the reference value.

TP-1 (Cont)

c) If it is desired to establish an additional set of reference values, the requirements of OM-10, Section 3.5 must be met.

* Adjustment of stem packing, limit switches, or control system valves, and removal of the bonnet, stem assembly, actuator, obturator, or control system components are examples of maintenance that could affect valve performance parameters.

IV. Stroke Time Acceptance Criteria (OM-10, sections 4.2.1.4, 4.2.1.8 and 4.2.1.9)

a) The OM-10 standard recognizes that operating characteristics of electric motor operated valves are more consistent than those of air operated valves. The acceptance criteria for electric motor operated valves and air operated valves are different to reflect the operating characteristics.

b) Per OM-10 Section 4.2.1.8, stroke time acceptance criteria are calculated based on the reference values established above. The stroke time acceptance criteria calculations are shown below:

Operator Type	Reference Value (RV) (Notes 1,2,3)	Acceptance Criteria (Note 4)	Limiting Stroke Time (LST) (Notes 4, 5)
Motor	RV> 10.0	0.85RV - 1.15RV	≤ 1.30RV
	4.0≤RV≤ 10.0	0.75RV - 1.25RV	≤ 1.50RV
	RV < 4.0 **	RV± 1.0 sec.	RV+2.0 sec.
Other	RV > 10.0	0.75RV - 1.25RV	≤ 1.5RV
	RV ≤ 10.0 **	0.50RV - 1.50RV	≤ 2.0RV
All	RV < 2.0 **	N/A	≤ 2.0 sec

c) According to OM-10, Section 4.2.1.9, if a valve does not meet its acceptance criteria, it will be immediately retested or declared inoperable. If the valve is retested and the second set of data also does not meet the acceptance criteria, either the data shall be analyzed within 96 hours to verify that the new stroke time represents acceptable valve operation, or the valve will be declared inoperable. If the second set of data meets the acceptance criteria, the cause of the initial deviation will be analyzed and the results documented in the record of tests.

** Valves that stroke in less that 2 seconds may be exempted from use of the Acceptance Criteria ranges shown for 'Motor' and 'Other' Operator types. In such cases, the maximum limiting stroke time shall be 2 seconds (Ref. OM-10. Section 4.2.1.8.e).

V. Limiting Stroke Time

The Limiting Stroke Time (LST) is bounded by the system requirements or values specified in the safety analyses for system performance (FSAR or Technical Specifications). When the identified limiting value is exceeded, the valve shall be declared inoperable and the applicable Technical Specification Limiting Condition for Operation (LCO) shall be entered. Following the declaration that the valve is inoperable, the valve may be repaired, replaced, or the data may be analyzed to determine the cause of the deviation and the valve shown to be operating acceptably. Valve operability based upon analysis shall have the results of the analysis recorded in the record of tests. Prior to returning a repaired or replacement valve to service, a test demonstrating satisfactory operation shall be performed.

VI. Notes

1) RV is the reference value in seconds for an individual valve or valve grouping.

2) Standard rounding techniques are used when rounding off stopwatch readings during valve stroke timing (e.g. 10.45 rounds to 10.5 and 10.44 rounds to 10.4 seconds). All measured stroke times are rounded to the nearest tenth of a second.

3) When reference stroke time values are affected by other parameters or conditions, then these parameters or conditions must be analyzed and the above factors adjusted.

4) If the above calculated acceptance values exceed a Technical Specification (TS) or Final Safety Analysis Report (FSAR) value, then the TS or FSAR value must be used for the Limiting Value of Full-Stroke Time.

5) If a minimum limiting stroke time exists for a given valve, the minimum value shall be used as the Lower Limiting Stroke Time. For valves with no lower limiting number, the Lower Limiting Stroke Time shall be N/A.

VII. References

a) Code of Federal Regulations, Title 10, Part 50.55a

b) ASME Boiler and Pressure Vessel Code, Section XI (1989 Edition)

c) ASME/ANSI OM-1987, Operation and Maintenance of Nuclear Power Plants (through OMa-1988)

d) NRC NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants

e) Salem UFSAR, Section 3.9.4, Inservice Testing of Pumps and Valves

f) Salem Technical Specification, Section 4.0.5, Surveillance Requirements

g) NC.NA-AP.ZZ-0012(Q), Technical Specification Surveillance Program

h) NC.NA-AP.ZZ-0070(Q), Inservice Testing Program

Salem Units 1 and 2 Inservice Test Program

Technical Position (TP-2)

I. **Title**

Pump Testing:
Pump Full Flow Testing.

II. **Issue Discussion**

a) Salem performs pump testing in accordance with the requirements of ASME/ANSI OM-1987, OMa-1988 Addenda, Part 6 - "Inservice Testing of Pumps in Light-Water Reactor Power Plants. Part 6, Paragraph 3.2, specifies that, where a pump cannot practically be tested in its regular circuit, a bypass loop may be used.

b) Generic Letter 89-04 (GL 89-04), "Guidance on Developing Acceptable Inservice Testing Programs", provides specific guidance for pump testing in NRC Staff Position 9, "Pump Testing Using Minimum-flow Return Lines With or Without Flow Measuring Devices". This staff position specifies that in cases where flow can only be established through a non-instrumented minimum-flow path during quarterly pump testing and a path exists at cold shutdowns or refueling outages to perform a test of the pump under full or substantial flow conditions, the staff has determined that the increased interval is an acceptable alternative to the Code requirements provided that pump differential pressure, flow rate, and bearing vibration measurements are taken during this testing and that quarterly testing also measuring at least pump differential pressure and vibration is continued. Data from both of these testing frequencies should be trended. In cases where only the minimum-flow return line is available for pump testing, regardless of the test interval, the staff's position is that flow instrumentation which meets the requirements of Part 6 Paragraphs 4.6.1.1 and 4.6.1.2 must be installed in the minimum-flow return line.

c) In response to GL 89-04 (NLR-N89196), Salem Generating Station specified that all pump testing at Salem Station utilizing mini-flow return lines is conducted through instrumented flow lines. Additionally, the response states that all of the affected pumps also receive a full flow test when plant conditions permit.

III. **Implementation:**

a) Safety-related pumps that are tested quarterly utilizing an instrumented minimum-flow line shall also be full-flow tested during refueling outages or, as applicable, cold shutdowns. These full-flow tests will provide for pump differential pressure, flow rate, and bearing vibration measurement. The full-flow tests, except for RHR pumps, will be considered "augmented testing", since Code requirements are met during quarterly testing.

b) Pump performance criteria developed for the full-flow test will not include alert values. The pump will be determined to be degraded and inoperable if the measured test parameters are outside the required action range listed in Part 6, Table 3b of ASME/ANSI OM-1987, Oma-1988 Addenda or do not meet the applicable Technical Specification limits for pump operability.

c) This position applies to the following pumps in the current Salem IST Program: 1AFE4, 1AFE5, 1AFE6, 1CSE1, 1CSE2, 1CVE20, 1CVE21, 1SJE2, 1SJE3, 2AFE4, 2AFE5, 2AFE6, 2CSE1, 2CSE2, 2CVE20, 2CVE21, 2SJE2, and 2SJE3. As stated above in III(a), full-flow testing on these pumps is not used to satisfy quarterly Code test requirements.

d) The following pumps will have acceptance criteria established which will include alert values: 1RHE1, 1RHE2, 2RHE1, 2RHE2. These pumps have full flow testing performed during each surveillance for which the 92 day interval falls during Modes 5 and 6. Credit is taken for the Code required surveillance testing under these tests. Thus, alert values will be used for these pumps.

IV. References

a) Code of Federal Regulations, Title 10, Part 50.55a

b) ASME Boiler and Pressure Vessel Code, Section XI (1989 Edition))

c) NRC Generic Letter 89-04, Guidance on Developing Acceptable Inservice Testing Programs

d) ASME/ANSI OM-1987, Operation and Maintenance of Nuclear Power Plants (through OMa-1988)

e) NRC NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants

f) Salem UFSAR, Section 3.9.4, Inservice Testing of Pumps and Valves

g) Salem Technical Specification, Section 4.0.5, Surveillance Requirements

h) NC.NA-AP.ZZ-0012(Q), Technical Specification Surveillance Program

i) NC.NA-AP.ZZ-0070(Q), Inservice Testing Program

Salem Units 1 and 2 Inservice Test Program

Technical Position (TP-3)

I. Title

Pump Testing:
Pump Fixed Reference Value Variance.

II. Issue Discussion

a) NUREG-1482, Section 5.3 recognizes that certain plant designs are not conducive to adjusting system resistance to obtain an exact fixed reference value. The staff has determined that, if the design does not allow for establishing and maintaining flow at an exact value, achieving a steady flow rate or differential pressure at approximately the set value does not require relief for establishing pump curves. The allowed tolerance for setting the fixed parameter must be established for each case individually including the accuracy of the instrument and the precision of its display. This will necessitate verification of the effect of precision on accuracy as considered in the design of the instrument gauge. A total tolerance of ± 2 percent of the reference value is allowed without approval from the NRC. For tolerance greater than ± 2 percent (may be necessary depending on the precision of the instrument), a corresponding adjustment to the acceptance criteria may be made to compensate for the uncertainty, or an evaluation be performed and documented justifying a greater tolerance. In using this guidance, the variance must be documented in the IST program documents or implementing procedures.

b) OM-6 requires digital instruments 1) be selected such that the pump reference value shall not exceed 70 percent of the calibrated range, and 2) be accurate to 2 percent over the calibrated range.

III. Implementation:

a) When system design prohibits setting flow rate at a specific reference value, an allowable tolerance shall be determined to aid performance of the inservice test. The tolerance shall be determined based on the applicable instrument accuracy and precision of display. In no case will the total tolerance exceed ± 2 percent of the reference value without a corresponding adjustment to the associated acceptance criteria or an evaluation being performed to justify the greater tolerance.

TP-3 (Cont)

b) The total tolerance shall be determined in a manner similar to the following example.

For an analog instrument with a full range of 0-10,000 gpm, accuracy of 1 percent full scale, and precision (increments) of 200 gpm used in a pump test with a reference flow rate of 6,000 gpm. Readings on the gauge would be acceptable to a degree of precision no greater than one-half the smallest increment. For this example, standard reading between increments is 100 gpm (200 gpm/2). This is the smallest flow rate that can be read on this gauge. To meet the requirements of NUREG-1482, the sum of the specified tolerance and the indicated accuracy, rounded to the nearest readable increment, must be less than or equal to 2 percent of full scale. Therefore, for the specified information:

Gauge accuracy = ± (10,000 gpm x .01) = ± 100 gpm

Specified Tolerance = ± (6,000 gpm x .02) = ± 120 gpm

Note: Since the minimum readable increment is 100 gpm, the specified tolerance can be either ± 100 gpm or ± 200 gpm.

If specify ± 100 gpm:

100 gpm + 100 gpm ≤ 200 gpm

200 gpm = 200 gpm Acceptable

If specify ± 200 gpm:

200 gpm + 100 gpm ≤ 200 gpm

300 gpm > 200 gpm Unacceptable

Therefore, the pump test procedure would specify the system resistance be adjusted to set observed flow rate to 6,000 ± 100 gpm. No relief request, NRC approval or further evaluation is required.

c) If required to use averaging techniques to reduce instrument fluctuations as allowed in Paragraph 4.6.1.5, the average gauge reading shall be set within the allowable tolerance. For example, if the specified test flow rate is 1000 ± 100 gpm and the observed reading is fluctuating, the average gauge reading shall be less than 1100 gpm but greater than 900 gpm, or the system resistance shall be varied until this condition is met.

IV. References

a) Code of Federal Regulations, Title 10, Part 50.55a

b) ASME Boiler and Pressure Vessel Code, Section XI (1989 Edition)

c) NRC Generic Letter 89-04, Guidance on Developing Acceptable Inservice Testing Programs

d) ASME/ANSI OM-1987, Operation and Maintenance of Nuclear Power Plants (through OMa-1988)

e) NRC NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants

f) Salem UFSAR, Section 3.9.4, Inservice Testing of Pumps and Valves

g) Salem Technical Specification, Section 4.0.5, Surveillance Requirements

h) NC.NA-AP.ZZ-0012(Q), Technical Specification Surveillance Program

i) NC.NA-AP.ZZ-0070(Q), Inservice Testing Program

Evaluation of SJ Pump Flow Instrumentation

Issue Discussion

Installed flow instruments for 21 and 22 SJ Pumps do not meet the ± 2 percent of reference value tolerance specified in Technical Position 4. This evaluation is required to justify the continued use of and acceptability of the installed instruments.

The 21 and 22 SJ Pumps, have a reference value of 30 ± 1 gpm. Two percent of reference value would be 30.6 gpm. The analog flow instrument reads in 1 gpm increments. The procedure directs flow to be set at 30 gpm ± 1 gpm.

Evaluation

NUREG-1482, Section 5.3 recognizes that adjusting system resistance to obtain an exact reference value may not be possible due to system design. For the SJ Pumps the instrument accuracy is 2% and its display is limited to 1 gpm increments. To meet the 2 percent requirement flow would be required to be in the 29.4 to 30.6 gpm band. The additional 0.6 gpm allowed due to gauge readout limitation would allow pump head to increase or decrease by less than 0.005 ft water. This corresponds to about 0.05 psid for differential pressure test acceptance criteria.

The small increase in the range of acceptable reference value settings will not decrease the ability of the test to detect degradation of the pump. The instruments that are currently installed will provide adequate ability to ensure test reliability and repeatability and will be used during pump testing.

Salem Units 1 and 2 Inservice Test Program

Technical Position (TP-4)

I. Title

Valve Testing:
Seat Leakage Testing per 10 CFR 50 Appendix J.

II. Issue Discussion

a) Salem performs valve testing in accordance with the requirements of ASME/ANSI OM-1987, OMa-1988 Addenda, Part 10 - "Inservice Testing of Valves in Light-Water Reactor Power Plants". Paragraph 1.4 provides guidance on categorizing valves and defines a Category A valve as one for which seat leakage is limited to a specific maximum amount in the closed position for fulfillment of their function. Paragraph 4.2.2 specifies valve leak rate test requirements for Category A valves. Paragraph 4.2.2.3 (e) requires each valve be assigned a permissible leakage rate and the measured leakage rate compared to previous measurements.

b) Generic Letter 89-04 (GL 89-04), NRC Staff Position 10, "Testing Containment Isolation Valves," specifies that "all containment isolation valves (CIVs) that are included in the Appendix J program should be included in the IST program as Category A or A/C valves." The staff has determined that the leak rate test procedures and requirements for CIVs specified Title 10, Part 50, Appendix J of the Code of Federal Regulation (10CFR50 Appendix J) are equivalent to the requirements of Paragraph 4.2.2.3 (a) through (d), provided that the Analysis of Leakage Rates and Corrective Action requirements of Paragraph 4.2.2.3 (e) and (f) are complied with.

c) NUREG-1482, Section 4.4.3 recognizes that certain plant designs are not conducive to individual seat leakage testing of containment penetrations with multiple isolation branches. Valves may be leak tested in groups as allowed by Part 10 of ASME/ANSI OM-1987, Oma-1988 Addenda (OM-10). If two or more valves on a containment penetration are tested as a group, limiting leakage-rate values must be assigned to the group for the purpose of monitoring the valve condition and taking corrective action. If the limiting values are exceeded, actions must be taken to determine the leakage path.

d) NUREG-1482, Section 4.4.5 provides guidance on leak-rate testing using OM-10 and specifies that Paragraph 4.2.2.3 may be used to update IST programs pursuant to 10CFR50.55a(f)(4)(iv) and meeting all of the requirements of Paragraphs 4.2.2.1 and 4.2.2.3.

TP-4 (Cont)

e) Paragraph 4.2.2.2 of OM-10 specifies that Category A valves which are CIVs shall be tested in accordance with Federal regulation 10CFR50. Appendix J. Containment isolation valves which also provide a reactor coolant system pressure isolation function shall additionally be tested in accordance with paragraph 4.2.2.3.

f) Paragraph 4.2.2.3 of OM-10 specifies the requirements for determining valve leakage rates for valves other than CIVs.

III. Implementation:

a) Category A containment isolation valves will be tested in accordance with the requirements of Technical Specification 3/4.6.1.2 and 10CFR50, Appendix J. Technical Specification 3/4.6.1.2 surveillance testing for measuring valve leakage is consistent with the requirements of Appendix J. Analysis of leakage rates and corrective action shall be as specified in OM-10, 4.2.2.3(e) and (f), as required by 10CFR50.55a(f)(4).

b) Containment isolation valves which also perform a reactor coolant system pressure isolation function shall additionally be tested in accordance with paragraph 4.2.2.

IV. References

a) Code of Federal Regulations, Title 10, Part 50.55a

b) ASME Boiler and Pressure Vessel Code, Section XI (1989 Edition)

c) NRC Generic Letter 89-04, Guidance on Developing Acceptable Inservice Testing Programs

d) ASME/ANSI OM-1987, Operation and Maintenance of Nuclear Power Plants (through OMa-1988)

e) NRC NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants

f) Salem UFSAR, Section 3.9.4, Inservice Testing of Pumps and Valves

g) Salem Technical Specification, Section 4.0.5, Surveillance Requirements

h) Salem Technical Specification, Section 3/4.6.1.2, Containment Leakage

i) NC.NA-AP.ZZ-0012(Q), Technical Specification Surveillance Program

j) NC.NA-AP.ZZ-0070(Q), Inservice Testing Program

Salem Units 1 and 2 Inservice Test Program

Technical Position (TP-5)

I. Title

Valve Testing:

Check Valve Sample Disassembly.

II. Issue Discussion

a) Generic Letter 89-04 (GL 89-04), NRC Staff Position 2, "Alternative to Full-flow Testing of Check Valves," recognizes that, for some check valves, it is impractical to establish or verify sufficient flow to full-stroke exercise the valve open. In fact, in some designs, establishing design accident flow through some check valves for testing could result in damage to major plant equipment. The NRC staff position is that valve disassembly and inspection can be used as a positive means of determining that a valve's disk will full-stroke exercise open or of verifying closure capability. The staff has established the following positions regarding testing check valves by disassembly:

(1) During valve testing by disassembly, the valve internals should be visually inspected for worn or corroded parts, and the valve disk should be manually exercised.

(2) Valve disassembly and inspection may be performed during reactor refueling outages. Since this frequency differs from the Code required frequency, this deviation must be specifically noted in the IST program.

(3) Where the licensee determines that it is burdensome to disassemble and inspect all applicable valves each refueling outage, a sample disassembly and inspection plan for groups of identical valves in similar applications may be employed.

The NRC guidelines for a sample disassembly and inspection plan are:

(1) The sample disassembly and inspection program involves grouping similar valves and testing one valve in each group during each refueling outage. The sampling technique requires that each valve in the group be the same design (manufacturer, size, model number, and materials of construction) and have the same service conditions including valve orientation.

(2) At each disassembly, the disassembled valve's full-stroke capability shall be verified and that the internals are structurally sound (no loose or corroded parts). If the disassembly is to verify the full-stroke capability of the valve, the disk should be manually exercised.

TP-5 (Cont)

(3) A different valve of each group is required to be disassembled, inspected, and manually full-stroke exercised at each successive refueling outage, until the entire group has been tested. If the disassembled valve is not capable of being full-stroke exercised or there is binding or failure of valve internals, the remaining valves in that group must also be disassembled, inspected, and manually full-stroke exercised during the same outage.

(4) Extension of the valve disassembly/inspection interval to one valve every other refueling outage or expansion of the group size above four valves should only be considered in cases of extreme hardship where the extension is supported by actual in-plant data from previous testing.

(5) If possible, partial valve stroking quarterly or during cold shutdowns, or after reassembly must be performed.

b) NUREG-1482, Section 4.1 provides additional guidance on check valve grouping, in that it discusses grouping of valves in multiple units of like design and construction. This Section specifies that, if units are "identical" and the grouped valves have similar operational experience and otherwise meet the grouping criteria, it is acceptable to group valves from multiple units.

c) Section 4.3.2 of OM-10 specifies the inservice testing required for check valves. Section 4.3.2.4.(c), "Valve Obturator Movement," allows check valve disassembly every refueling outage as an alternative testing method to verify check valve operability.

d) NRC Generic Letter 96-06, "Assurance of Equipment Operability and Containment" was issued 9/30/96. The purpose was to notify licensees about safety- significant issues that could affect containment integrity and equipment operability during accident conditions. Engineering evaluations S-1-ZZ-MEE-1231 and S-2-ZZ-MEE-1145 document the Salem resolution to the generic letter significant issues. In resolving potential over-pressurization of containment penetrations and piping "credit" has been taken for certain check valves now performing an open safety function to relieve pressure. Since for this application the overpressure source is only the thermal expansion of trapped water, the check valve will only lift or "burp" an insignificant amount to relieve the overpressure condition. The lifting function of these valves will be demonstrated by evidence that the disk moves off its seat. Neither disassembly & inspection or maximum required accident condition flow, as described in NRC GL 89-04, will be performed to take credit for a full-stroke exercise due to the insignificant amount of disk movement required for the valve to fulfill its intended safety function. The test method in use exceeds GL 89-04 expectations in that unquantified flow is demonstrated which exceeds the short duration lift or "burp" that would actually occur during accident conditions.

III. Implementation:

a) When system design prohibits full-stroke or reverse exercising a check valve at any plant condition, the valve shall be disassembled and inspected at a refueling outage frequency. Where practical, a partial stroke exercise test shall be performed after reassembly to verify valve disassembly and reassembly did not impair the valve's ability to perform its safety function.

b) When more than one valve of the same design and service conditions are involved, a sample disassembly and inspection program, based on the requirements of GL 89-04, shall be used to verify valve operability. No more than four valves will be included within one group.

c) Extension of the valve disassembly/inspection intervals to longer than once every 6 years shall be supported based on actual in-plant data from previous testing and shall be documented as set forth in GL 89-04.

d) The lifting function of GL 96-06 check valves will be demonstrated by evidence that the disk moves off its seat. Neither disassembly & inspection or maximum required accident condition flow, as described in NRC GL 89-04, will be performed.

IV. References

a) Code of Federal Regulations, Title 10, Part 50.55a

b) ASME Boiler and Pressure Vessel Code, Section XI (1989 Edition)

c) NRC Generic Letter 89-04, Guidance on Developing Acceptable Inservice Testing Programs

d) ASME/ANSI OM-1987, Operation and Maintenance of Nuclear Power Plants (through OMa-1988)

e) NRC NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants

f) Salem UFSAR, Section 3.9.4, Inservice Testing of Pumps and Valves

g) Salem Technical Specification, Section 4.0.5, Surveillance Requirements

h) NC.NA-AP.ZZ-0012(Q), Technical Specification Surveillance Program

i) NC.NA-AP.ZZ-0070(Q), Inservice Testing Program

Salem Units 1 and 2 Inservice Test Program

Technical Position (TP-5) Salem Check Valve IST Disassembly Grouping Data

Valve Group	Valve ID	Unit	Manuf.	Model Number	Type	Size	Orientation	Valve Body Material	Normal Service Conditions	SYS	PSBP	Orientation Reference
1	11AF53	S1	Velan Valve	B14-0114C-2TS	Swing	6"	Horizontal	CS GR. WCB, SA-216	Normally closed, AFW pump alternate suction. Demin Water @ ≥ 65F, 25 psig	AF	136382	207482 sh 3
1	12AF53	S1	Velan Valve	B14-0114C-2TS	Swing	6"	Horizontal	CS GR. WCB, SA-216	Normally closed, AFW pump alternate suction. Demin Water @ ≥ 65F, 25 psig	AF	136382	207482 sh 3
2	21AF53	S2	Velan Valve	B14-0114C-2TS	Swing	6"	Horizontal	CS GR. WCB, SA-216	Normally closed, AFW pump alternate suction. Demin Water @ ≥ 65F, 25 psig	AF	136382	AF22 sh 1
2	22AF53	S2	Velan Valve	B14-0114C-2TS	Swing	6"	Horizontal	CS GR. WCB, SA-216	Normally closed, AFW pump alternate suction. Demin Water @ ≥ 65F, 25 psig	AF	136382	AF22 sh 1
3 *	13AF53	S1	Velan Valve	B15-0114B-2T	Swing	8"	Horizontal	CS GR. WCB, SA-216	Normally closed, AFW pump alternate suction. Demin Water @ ≥ 65F, 25 psig	AF	136383	207482 sh 4
3*	23AF53	S2	Velan Valve	B15-0114B-2T	Swing	8"	Horizontal	CS GR. WCB, SA-216	Normally closed, AFW pump alternate suction. Demin Water @ ≥ 65F, 25 psig	AF	136383	AF22 sh 1
4	11SJ43	S1	Velan Valve	B14-3114B-13M	Swing	6"	Horizontal	SS F316, A182	Normally closed. During RHR, 1500 gpm borated water @ 65-300 F, 0-300 psig	SJ	106252	RH13A sh 2
4	12SJ43	S1	Velan Valve	B14-3114B-13M	Swing	6"	Horizontal	SS F316, A182	Normally closed. During RHR, 1500 gpm borated water @ 65-300 F, 0-300 psig	SJ	106252	RH13A sh 2
4	13SJ43	S1	Velan Valve	B14-3114B-13M	Swing	6"	Horizontal	SS F316, A182	Normally closed. During RHR, 1500 gpm borated water @ 65-300 F, 0-300 psig	SJ	106252	RH13A sh 2
4	14SJ43	S1	Velan Valve	B14-3114B-13M	Swing	6"	Horizontal	SS F316, A182	Normally closed. During RHR, 1500 gpm borated water @ 65-300 F, 0-300 psig	SJ	106252	RH13A sh 2
5	21SJ43	S2	Velan Valve	B14-3114B-13M	Swing	6"	Horizontal	SS F316, A182	Normally closed. During RHR, 1500 gpm borated water @ 65-300 F, 0-300 psig	SJ	106252	RH23 sh 1
5	22SJ43	S2	Velan Valve	B14-3114B-13M	Swing	6"	Horizontal	SS F316, A182	Normally closed. During RHR, 1500 gpm borated water @ 65-300 F, 0-300 psig	SJ	106252	RH23 sh 3
5	23SJ43	S2	Velan Valve	B14-3114B-13M	Swing	6"	Horizontal	SS F316, A182	Normally closed. During RHR, 1500 gpm borated water @ 65-300 F, 0-300 psig	SJ	106252	RH23 sh 1
5	24SJ43	S2	Velan Valve	B14-3114B-13M	Swing	6"	Horizontal	SS F316, A182	Normally closed. During RHR, 1500 gpm borated water @ 65-300 F, 0-300 psig	SJ	106252	RH23 sh 4

* Valves 13AF53 and 23AF53 are grouped across Salem Units 1 and 2. Since the AF53s are in the normally drained alternate suction lines for the AF pumps, this grouping meets the TP-5 criteria that across-unit valves have similar operating experience.

Salem Units 1 and 2 Inservice Test Program

Technical Position (TP-5) Salem Check Valve IST Disassembly Grouping Data

Valve Group	Valve ID	Unit	Manuf.	Model Number	Type	Size	Orientation	Valve Body Material	Normal Service Conditions	SYS	PSBP	Orientation Reference
6	12SW5	S1	C&S Valve	D00-N113I-00	Dual Plt Check	24"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Discharge to #11 Nuclear Service Water Header @≥ 32F. 150 psig	SW	316942	205242-1
6	14SW5	S1	C&S Valve	D00-N113I-00	Dual Plt Check	24"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Discharge to #12 Nuclear Service Water Header @≥ 32F. 150 psig	SW	316942	205242-2
7	22SW5	S2	C&S Valve	D00-N113I-00	Dual Plt Check	24"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Discharge to #21 Nuclear Service Water Header @≥ 32F. 150 psig	SW	316942	205342-1
7	24SW5	S2	C&S Valve	D00-N113I-00	Dual Plt Check	24"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Discharge to #22 Nuclear Service Water Header @≥ 32F. 150 psig	SW	316942	205342-2
8	11SW47	S1	C&S Valve	D00-G119I-00	Dual Plt Check	8"	Horizontal	AL6XN (SA351, CN3MN)	Normally closed. Service water return from Diesel generators @≥ 32F. 150 psig	SW	320045	205242-3
8	12SW47	S1	C&S Valve	D00-G119I-00	Dual Plt Check	8"	Horizontal	AL6XN (SA351, CN3MN)	Normally closed. Service water return from Diesel generators @≥ 32F. 150 psig	SW	320045	205242-3
9	21SW47	S2	C&S Valve	D00-G119I-00	Dual Plt Check	8"	Horizontal	AL6XN (SA351, CN3MN)	Normally closed. Service water return from Diesel generators @≥ 32F. 150 psig	SW	320045	205342-3
9	22SW47	S2	C&S Valve	D00-G119I-00	Dual Plt Check	8"	Horizontal	AL6XN (SA351, CN3MN)	Normally closed. Service water return from Diesel generators @≥ 32F. 150 psig	SW	320045	205342-3
10	11SW51	S1	C&S Valve	D00-K113I-00	Dual Plt Check	16"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Supply to CFCU's from #11 Nuc. Service Water Header @≥ 32F. 150 psig	SW	316941	205242-6
10	12SW51	S1	C&S Valve	D00-K113I-00	Dual Plt Check	16"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Supply to CFCU's from #12 Nuc. Service Water Header @≥ 32F. 150 psig	SW	316941	205242-5
10	11SW 532	S1	C&S Valve	D00-K113I-00	Dual Plt Check	16"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Supply to CFCU's from #11 Nuc. Service Water Header @≥ 32F. 150 psig	SW	316941	205242-6
10	12SW 532	S1	C&S Valve	D00-K113I-00	Dual Plt Check	16"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Supply to CFCU's from #12 Nuc. Service Water Header @≥ 32F. 150 psig	SW	316941	205242-5
11	21SW51	S2	C&S Valve	D00-K113I-00	Dual Plt Check	16"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Supply to CFCU's from #21 Nuc. Service Water Header @≥ 32F. 150 psig	SW	316941	205342-6
11	22SW51	S2	C&S Valve	D00-K113I-00	Dual Plt Check	16"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Supply to CFCU's from #22 Nuc. Service Water Header @≥ 32F. 150 psig	SW	316941	205342-5
11	21SW 532	S2	C&S Valve	D00-K113I-00	Dual Plt Check	16"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Supply to CFCU's from #21 Nuc. Service Water Header @≥ 32F. 150 psig	SW	316941	205342-6
11	22SW 532	S2	A&M (C&S)	D00-K113I-00	Dual Plt Check	16"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Supply to CFCU's from #22 Nuc. Service Water Header @≥ 32F. 150 psig	SW	316941	205342-5

Salem Units 1 and 2 Inservice Test Program

Technical Position (TP-5) Salem Check Valve IST Disassembly Grouping Data

Valve Group	Valve ID	Unit	Manuf.	Model Number	Type	Size	Orientation	Valve Body Material	Normal Service Conditions	SYS	PSBP	Orientation Reference
12	11SW 536	S1	C&S Valve	D00-H113I-00	Dual Plt Check	10"	Horizontal	AL6XN (SA351, CN3MN)	Normally closed. Emergency water to CFCU's @≥ 56.5F. 150 psig.	SW	316940	205242-7
12	12SW 536	S1	C&S Valve	D00-H113I-00	Dual Plt Check	10"	Horizontal	AL6XN (SA351, CN3MN)	Normally closed. Emergency water to CFCU's @≥ 56.5F. 150 psig.	SW	316940	205242-7
13	21SW 536	S2	A&M Valve	D00-H113I-00	Dual Plt Check	10"	Horizontal	(SA351, CN8M)	Normally closed. Emergency water to CFCU's @≥ 56.5F. 150 psig.	SW	322664	205342-7
13	22SW 536	S2	A&M Valve	D00-H113I-00	Dual Plt Check	10"	Horizontal	(SA351, CN8M)	Normally closed. Emergency water to CFCU's @≥ 56.5F. 150 psig.	SW	322664	205342-7
14	11SW79	S1	C&S Valve	D00-N119I-00	Dual Plt Check	24"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Routing of Service Water flow to circulating water discharge @≥ 56.5F. 150 psig.	SW	316942	205242-3
14	12SW79	S1	C&S Valve	D00-N119I-00	Dual Plt Check	24"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Routing of Service Water flow to circulating water discharge @≥ 56.5F. 150 psig.	SW	316942	205242-3
15	21SW79	S2	C&S Valve	D00-N119I-00	Dual Plt Check	24"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Routing of Service Water flow to circulating water discharge @≥ 56.5F. 150 psig.	SW	316942	205342-3
15	22SW79	S2	C&S Valve	D00-N119I-00	Dual Plt Check	24"	Horizontal	AL6XN (SA351, CN3MN)	Normally open. Routing of Service Water flow to circulating water discharge @≥ 56.5F. 150 psig.	SW	316942	205342-3

Salem Units 1 and 2 Inservice Test Program

Technical Position (TP-6)

I. Title

Pump and Valve Testing:
Skid Mounted Components.

II. Issue Discussion

a) NUREG-1482, Section 3.4 recognizes that the Code class piping systems may include skid-mounted components or component sub-assemblies such as valves in diesel air-start subassemblies, diesel skid-mounted fuel oil pump(s) and valves, steam admission and trip throttle valves for auxiliary feedwater pump turbine drivers, steam traps, and air supply system check valves and solenoid-operated valves for main steam isolation valves. If these components are identified as ASME Code Class 1, 2, or 3, in the Safety Evaluation Report (SER), they are subject to IST. If these components are not identified as ASME Code Class 1, 2, or 3, in the SER (or the SER indicates that they are maintained as Code class, but are not required to be Code class), they are not subject to IST in accordance with Part 50.55a of Title 10 of the Code of Federal Regulation (10CFR50.55a). However, these components may be subject to periodic testing in accordance with 10 CFR 50, Appendix A and Appendix B. The staff has determined that the testing of the major component is an acceptable means for verifying the operational readiness of the skid-mounted and component subassemblies if this approach is documented in the IST program. This is acceptable for both Code class components and non-Code class components tested and tracked in the IST Program.

III. Implementation:

a) The operational readiness of components and sub-assemblies that are skid-mounted or are integral parts of a major component will be verified during testing of the major component. The individual components will not be specifically listed in the IST Program and will not be individually tested. Satisfactory operation of the major component verifies the operation of the skid-mounted component or sub-assembly.

IV. References

a) Code of Federal Regulations, Title 10, Part 50.55a

b) ASME Boiler and Pressure Vessel Code, Section XI (1989 Edition)

c) NRC Generic Letter 89-04, Guidance on Developing Acceptable Inservice Testing Programs

d) ASME/ANSI OM-1987, Operation and Maintenance of Nuclear Power Plants (through OMa-1988)

TP-6 (Cont)

e) NRC NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants

f) Salem UFSAR, Section 3.9.4, Inservice Testing of Pumps and Valves

g) Salem Technical Specification, Section 4.0.5, Surveillance Requirements

h) NC.NA-AP.ZZ-0012(Q), Technical Specification Surveillance Program

i) NC.NA-AP.ZZ-0070(Q), Inservice Testing Program

ATTACHMENT 2

COLD SHUTDOWN JUSTIFICATIONS

Salem Units 1 and 2 Inservice Test Program

COLD SHUTDOWN JUSTIFICATION INDEX

NUMBER	UNIT 1 - VALVES	UNIT 2 - VALVES
CS-01	11/12/13AF4	21/22/23AF4
CS-02	11/12/13AF8	21/22/23AF8
CS-03	11/12/13/14AF23	21/22/23/24AF23
CS-04	11/12/13/14AF920	21/22/23/24AF920
CS-05	11/12/13/14AF921	21/22/23/24AF921
CS-06	11/12/13/14BF13	21/22/23/24BF13
CS-07	11/12/13/14BF19	21/22/23/24BF19
CS-08	11/12/13/14BF22	21/22/23/24BF22
CS-09	11/12/13/14BF40	21/22/23/24BF40
CS-10	1CC71	2CC71
CS-11	1CC118	2CC118
CS-12	1CC131/136/187/190	2CC131/136/187/190
CS-13	11/12CS36	21/22CS36
CS-14	1CV7	2CV7
CS-15	1CV40/41	2CV40/41
CS-16	1CV68/69	2CV68/69
CS-17	1CV75	2CV75
CS-18	1CV76	2CV76
CS-19	1CV78,80,274,275	2CV78,80,274,275
CS-20	1CV116, 1CV284	2CV116, 2CV284
CS-21	1CV176	2CV176
CS-22	11/12DA13A,B,C &14A,B,C	21/22DA13A,B,C &14A,B,C
CS-23	11/12/13/14MS10	21/22/23/24MS10
CS-24	11/12/13/14MS167	21/22/23/24MS167
CS-25	11/12/13/14MS169 & 171	21/22/23/24MS169 & 171
CS-26	1PR1, 1PR2	2PR1, 2PR2
CS-27	1PS1, 1PS3	2PS1, 2PS3
CS-28	1RC40,41,42,43	2RC40,41,42,43
CS-29	1RH1 ,2	2RH1,2
CS-30	11/12RH8	21/22RH8
CS-31	11/12RH18	21/22RH18
CS-32	11/12RH19	21/22RH19
CS-33	1RH26	2RH26
CS-34	NOT APPLICABLE	2RH75, 2RH76
CS-35	1SJ30	2SJ30
CS-36	11/12SJ40	21/22SJ40
CS-37	11/12SJ44	21/22SJ44
CS-38	11/12SJ45	21/22SJ45
CS-39	11/12SJ49	21/22SJ49
CS-40	11/12/13/14SJ54	21/22/23/24SJ54
CS-41	1SJ67,68	2SJ67,68
CS-42	1SJ69	2SJ69
CS-43	1SJ135	2SJ135
CS-44	1VC1, 1VC4	2VC1, 2VC4
CS-45	1VC2, 1VC3	2VC2, 2VC3

COLD SHUTDOWN TEST JUSTIFICATION - CS - 01

COMPONENTS: 11AF4, 12AF4, 13AF4
21AF4, 22AF4, 23AF4

FUNCTION:

These valves are located in the normal suction supply piping to the motor and steam driven auxiliary feed (AF) pumps from the auxiliary feed storage tank (AFST). The valves perform an active safety function in both the open and closed positions. In the closed position, the valves prevent diversion of suction supply when the AF pumps are aligned to their alternate suction supply source. These valves must be capable of opening upon pump start to allow passage of design accident flow.

CATEGORY: C

CLASS: 3

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

Exercising these check valves to the full open position during power operation would require establishing auxiliary feedwater flow to the steam generators since the recirculation line to the AFST is of insufficient size to allow full exercising during quarterly pump testing. Establishing high flow to the steam generators during plant operation would result in steam generator level problems and thermal shocking of piping. During plant operation cooldown cycles are to be minimized to reduce the potential for feedwater nozzle cracking and prevent water hammer due to cold water stratification phenomenon. The AFW pumps are only started at power when piping temperature is 160 degrees or more and then only at the smallest possible flow to allow piping/pump cooling in the event of system back leakage.

ALTERNATE TESTING:

These valves will be partially exercised to the open position during the quarterly pump test by recirculating water from the AFST. Full stroke exercising to the open position shall be performed during startup after each cold shutdown. These valves are not required to be operable during cold shutdown therefore testing need not be performed quarterly during cold shutdown. In cases of frequent cold shutdowns these valves need not be full exercised more often than once every 3 months.

References: Calc: S-C-F400-MFD-0321 Rev. 2
Calc: S-C-F400-MSE-0370 Rev. 0
Procedure: S2.OP-PT.AF-0002(Q)

COLD SHUTDOWN TEST JUSTIFICATION - CS - 02

COMPONENTS: 11AF8, 12AF8, 13AF8
21AF8, 22AF8, 23AF8

FUNCTION:

These check valves are located in the discharge piping from the motor driven and steam driven auxiliary feed pumps. The valves perform an active safety function in the open position. The valves must be capable of opening upon associated pump start to allow passage of design accident flow.

CATEGORY: C

CLASS: 3

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

Exercising these check valves to the full open position or the motor driven AFP check valves to the partial open position during power operation would require establishing auxiliary feedwater flow to the steam generators. Establishing high flow to the steam generators during plant operation would result in steam generator level problems and thermal shocking of piping. During plant operation cooldown cycles are to be minimized to reduce the potential for feedwater nozzle cracking and prevent water hammer due to cold water stratification phenomenon. The AFW pumps are only started at power when piping temperature is 160 degrees or more and then only at the smallest possible flow to allow piping/pump cooling in the event of system back leakage.

ALTERNATE TESTING:

The motor and steam driven AFP check valves will be full stroke exercised to the open position during startup after each cold shutdown. These valves are not required to be operable during cold shutdown therefore testing need not be performed quarterly during cold shutdown. The steam driven AFP check valve will be partial exercised quarterly using the available test return line. In cases of frequent cold shutdowns these valves need not be full exercised more often than once every 3 months.

References: Calc: S-C-F400-MFD-0321 Rev. 2
Calc: S-C-F400-MSE-0370 Rev. 0
Procedure: S2.OP-PT.AF-0002(Q)

COLD SHUTDOWN TEST JUSTIFICATION - CS - 03

COMPONENTS: 11AF23, 12AF23, 13AF23, 14AF23
21AF23, 22AF23, 23AF23, 24AF23

FUNCTION:

These stop check valves are located in the auxiliary feedwater injection lines to the steam generators. The valves perform an active safety function in both the open and closed positions. In the closed position, the valves prevent inleakage of steam to the auxiliary feedwater piping and components. This function prevents the potential of steam binding of the auxiliary feedwater pumps. The valves must be capable of opening upon pump start to allow passage of design accident flow.

CATEGORY: C

CLASS: 3

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

Exercising these stop check valves to the full or partial open position during power operation would require establishing auxiliary feedwater flow to the steam generators. Establishing high flow to the steam generators during plant operation would result in steam generator level problems and thermal shocking of piping. During plant operation cooldown cycles are to be minimized to reduce the potential for feedwater nozzle cracking and prevent water hammer due to cold water stratification phenomenon. The AFW pumps are only started at power when piping temperature is 160 degrees or more and then only at the smallest possible flow to allow piping/pump cooling in the event of system back leakage.

ALTERNATE TESTING:

These valves will be full stroke exercised to the open position during startup after each cold shutdown. These valves are not required to be operable during cold shutdown therefore testing need not be performed quarterly during cold shutdown. In cases of frequent cold shutdowns these valves need not be full exercised more often than once every three months.

References: Calc: S-C-F400-MFD-0321 Rev. 2
Calc: S-C-F400-MSE-0370 Rev. 0
Procedure: S2.OP-PT.AF-0002(Q)

COLD SHUTDOWN TEST JUSTIFICATION - CS - 04

COMPONENTS: 11AF920, 12AF920, 13AF920, 14AF920
21AF920, 22AF920, 23AF920, 24AF920

FUNCTION:

These check valves are located in the discharge piping from the motor driven auxiliary feed pumps to the steam generator feedwater headers. The valves perform an active safety function in the open position. The valves must be capable of opening upon associated pump start to allow passage of design accident flow.

CATEGORY: C

CLASS: 3

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

Exercising these check valves to the full or partial open position during power operation would require establishing auxiliary feedwater flow to the steam generators. Establishing high flow to the steam generators during plant operation would result in steam generator level problems and thermal shocking of piping. During plant operation cooldown cycles are to be minimized to reduce the potential for feedwater nozzle cracking and prevent water hammer due to cold water stratification phenomenon. The AFW pumps are only started at power when piping temperature is 160 degrees or more and then only at the smallest possible flow to allow piping/pump cooling in the event of system back leakage.

ALTERNATE TESTING:

These valves will be full stroke exercised to the open position during startup after each cold shutdown. These valves are not required to be operable during cold shutdown therefore testing need not be performed quarterly during cold shutdown. In cases of frequent cold shutdowns these valves need not be full exercised more often than once every 3 months.

References: Calc: S-C-F400-MFD-0321 Rev. 2
Calc: S-C-F400-MSE-0370 Rev. 0
Procedure: S2.OP-PT.AF-0002(Q)

COLD SHUTDOWN TEST JUSTIFICATION - CS - 05

COMPONENTS: 11AF921, 12AF921, 13AF921, 14AF921
21AF921, 22AF921, 23AF921, 24AF921

FUNCTION:

These check valves are located in the discharge piping from the steam driven auxiliary feed pump to the steam generator feedwater headers. The valves perform an active safety function in both the open and closed positions. The valves must be capable of opening upon associated pump start to allow passage of design accident flow. The valves perform an active safety function in the closed position to prevent diversion of motor driven AF pump discharge flow to the turbine driven AF pump.

CATEGORY: C
CLASS: 3
TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

Exercising these check valves to the full or partial open position during power operation would require establishing auxiliary feedwater flow to the steam generators. Establishing high flow to the steam generators during plant operation would result in steam generator level problems and thermal shocking of piping. During plant operation cooldown cycles are to be minimized to reduce the potential for feedwater nozzle cracking and prevent water hammer due to cold water stratification phenomenon. The AFW pumps are only started at power when piping temperature is 160 degrees or more and then only at the smallest possible flow to allow piping/pump cooling in the event of system back leakage. Reverse flow exercising these valves at power requires opening the motor driven auxiliary feedwater pump steam generator inlet valve using the pressure override defeat pushbutton while venting upstream of the steam driven driven auxiliary feedwater pump steam generator inlet check valve. This action requires declaring two auxiliary feedwater pumps inoperable and entry into a six hour shutdown LCO.

ALTERNATE TESTING:

These valves shall be reverse flow exercised to the closed position during cold shutdown when the AF pumps are not required to be operable and full stroke exercised to the open position during startup after each cold shutdown. These valves are not required to be operable during cold shutdown therefore testing need not be performed quarterly during cold shutdown. In cases of frequent cold shutdowns these valves need not be full exercised more often than once every 3 months.

References: Calc: S-C-F400-MFD-0321 Rev. 2
Calc: S-C-F400-MSE-0370 Rev. 0
Procedure: S2.OP-PT.AF-0002(Q)

COLD SHUTDOWN TEST JUSTIFICATION - CS - 06

COMPONENTS: 11BF13, 12BF13, 13BF13, 14BF13
21BF13, 22BF13, 23BF13, 24BF13

FUNCTION:

These motor operated valves are the main feedwater isolation valves which perform an active safety function in the closed position to provide redundant isolation capability for the feedwater control and bypass valves (BF19 and BF40). The valves must be capable of automatic closure upon receipt of a safety injection signal subsequent to a main steam line break to prevent excessive cooldown of RCS and overpressurization of the containment. These valves also close on a high-high steam generator water level signal to prevent feedwater flow from exceeding assumed limits per analysis. Additionally, the valve closes upon receipt of a reactor trip signal coincident with a low reactor coolant system average temperature condition.

CATEGORY: B

CLASS: None

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These valves are located in the flow path for the main feedwater supply to the steam generators. Valve exercising during power operation would require isolation of a feedwater loop, which is not permissible. Plant Technical Specifications (3.4.5 for Salem 1 & 3.4.6 for Salem 2) requires each steam generator to be operable during Modes 1, 2, 3 and 4. Additionally, the control circuitry of these valves does not permit partial exercising.

ALTERNATE TESTING:

These valves shall be exercised on an augmented program basis to the closed position in accordance with the requirements of Part 10-4.2.1 during cold shutdowns. Partial stroke exercising during plant operation will not be performed. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 07

COMPONENTS: 11BF19, 12BF19, 13BF19, 14BF19
21BF19, 22BF19, 23BF19, 24BF19

FUNCTION:

These air-operated fail-closed valves are the main feedwater control valves which perform an active safety function in the closed position. The valves must be capable of automatic closure upon receipt of a safety injection signal subsequent to a main steam line break to prevent excessive cooldown of RCS and overpressurization of the containment. The valves also closes on a high-high steam generator water level signal to prevent feedwater flow from exceeding assumed limits by analysis. Additionally, the valve closes upon receipt of a reactor trip signal coincident with a low reactor coolant system average temperature condition.

CATEGORY: B

CLASS: None

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These valves are located in the flow path for the main feedwater supply to the steam generators. Valve exercising during power operation would require isolation of a feedwater loop, which is not permissible. Plant Technical Specifications (3.4.5 for Salem 1 & 3.4.6 for Salem 2) requires each steam generator to be operable during Modes 1, 2, 3 and 4. Partial exercising these valves during power operation could result in a power reduction and reactor oscillations, which would place the reactor plant in an unstable condition.

ALTERNATE TESTING:

These valves shall be exercised on an augmented program basis to the closed position in accordance with the requirements of Part 10-4.2.1 during cold shutdowns. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 08

COMPONENTS: 11BF22, 12BF22, 13BF22, 14BF22
21BF22, 22BF22, 23BF22, 24BF22

FUNCTION:

These motor operated, stop check valves are located in the main feedwater supply headers to the steam generators. The valves perform an active safety function in the closed position. The valves must be capable of automatic closure (simple check valve function) upon cessation and reversal of flow subsequent to a main feedwater line break to prevent loss of inventory from the affected steam generator. Additionally, these valves must close to prevent diversion of auxiliary feedwater flow upon a loss of normal feedwater. These valves also serve as a Class 2 to non-Code boundary barrier. Remote-manual operation from the control room ensures positive isolation during all accident scenarios to satisfy GDC 57 criterion.

CATEGORY: B/C

CLASS: 2

TEST REQUIREMENTS:

Closed Exercising - Valves (Category B) shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.2. Closed Position - Check valves (Category C) shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

These valves are located in the flow path for the main feedwater supply to the steam generators and are normally open during power operation. Valve exercising during power operation would require isolation of a feedwater loop, which could cause a feedwater transient with a potential for a reactor trip. Additionally, valve closure during power operation is not permissible due to Plant Technical Specifications (3.4.5 for Salem 1 & 3.4.6 for Salem 2) requiring each steam generator to be operable during Modes 1, 2, 3 and 4.

ALTERNATE TESTING:

These motor operated stop check valves shall be exercised to the closed position in accordance with the requirements of Part 10-4.3.2.2 during cold shutdowns. The safety function of the valve is dependent upon the simple check valve function for normal feedwater isolation and the motor operated positive shut-off function for containment isolation. Reverse flow exercise testing and stroke timing the remote-manual stop check feature will be performed to satisfy both Code requirements. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 09

COMPONENTS: 11BF40, 12BF40, 13BF40, 14BF40
21BF40, 22BF40, 23BF40, 24BF40

FUNCTION:

These air operated, fail-closed valves are the main feedwater bypass control valves which perform an active safety function in the closed position. The valves must be capable of automatic closure, if open, upon receipt of a safety injection signal subsequent to a main steam line break to prevent excessive cooldown of RCS and overpressurization of the containment. The valves also close on a high-high steam generator water level signal to prevent feedwater flow from exceeding assumed limits per analysis. Additionally, the valves close upon receipt of a reactor trip signal coincident with a low reactor coolant system average temperature condition.

CATEGORY: B

CLASS: None

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These valves are located in the flow path for the main feedwater supply to the steam generators. Valve exercising during power may cause a feedwater level perturbation due to main feedwater control valve (BF19) changing position to follow load. Plant Technical Specification (3.4.5 for Salem 1 & 3.4.6 for Salem 2) requires each steam generator to be operable during Modes 1, 2, 3 and 4. Quarterly partial exercising these valves during power operation could result in a power transient potentially placing the reactor plant in an unstable condition. In the event maintenance is required during plant operation, post-maintenance partial stroking is performed following packing adjustments.

ALTERNATE TESTING:

These valves shall be exercised on an augmented program basis to the closed position in accordance with the requirements of Part 10-4.2.1 during cold shutdowns. Partial stroke exercising during plant operation is not practical and will not be performed except as PMT for packing adjustments. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 10

COMPONENTS: 1CC71, 2CC71

FUNCTION:

This normally open, fail-closed, air operated control valve is located in the outlet line from the letdown heat exchanger. This control valve has an active safety function in the closed position to isolate CC flow to the Letdown Heat Exchanger to prevent CC pump runout and ensure sufficient CC flow exists to the safety-related portion of the component cooling system. This valve interlocked with Letdown Containment Isolation valve CV7 such that when CV7 is fully closed, valve CC71 closes. Valve CC71 closes automatically (via CV7 interlock) during a LOCA on a Containment Isolation Phase A signal, or manually when letdown is secured during plant shutdown.

CATEGORY: B

CLASS: 3

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

This air operated control valve is maintained in the open position to provide a flow path from the Letdown Heat Exchanger during normal letdown operation. This flow path is required during all phases of plant operation to support CVCS operation, which maintains proper reactor coolant inventory by means of a continuous feed and bleed process. Exercising this valve to the closed position at power would require isolating normal letdown flow through the regenerative heat exchanger and placing excess letdown in operation. Isolation of the regenerative heat exchanger would prevent the transfer of heat from the letdown flow to the charging flow. This creates the potential of thermal shock to the RCS charging inlet nozzle branch connections and thermal sleeves by the injection of relatively cold water. The injection of cold water could also result in a power transient and RCS instability during plant operation. Additionally, the valve control circuitry is not provided with partial stroke capability.

ALTERNATE TESTING:

This valve shall be exercised to the closed position in accordance with the requirements of Part 10-4.2 during cold shutdown. In cases of frequent cold shutdowns this valve need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 11

COMPONENTS: 1CC118
2CC118

FUNCTION:

These motor operated valves are located in the Component Cooling Water (CCW) supply line, which provides cooling water to the Reactor Coolant Pump (RCP) bearings and thermal barriers. These valves are designated as outboard containment isolation valves, and performs an active safety function in the closed position to maintain containment integrity.

CATEGORY: A

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation this valve remains in the open position to ensure a continuous supply of cooling water to the motor bearings and thermal barriers of all four RCPs of each reactor plant. Exercising these valves to the closed position, during power operation, could result in extensive pump damage due to the interruption of cooling water flow. Inadvertent valve failure in the closed position, during testing, would require plant shutdown, in addition to causing pump damage. The control circuitry associated with this valve does not provide for partial stroke capability.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the closed position in accordance with the requirements of Part 10-4.2.1 during cold shutdowns when the RCPs can be removed from service. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 12

COMPONENTS: 1CC131, 1CC136, 1CC187, 1CC190
2CC131, 2CC136, 1CC187, 2CC190

FUNCTION:

These motor operated valves are located in the Component Cooling Water (CCW) return lines from the Reactor Coolant Pump (RCP) bearing coolers and thermal barriers. The valves are designated as inboard and outboard containment isolation valves, and perform an active safety function in the closed position to maintain containment integrity.

CATEGORY: A

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation these valves remain in the open position to provide a return flow path for cooling water from the motor bearing coolers and thermal barriers on all four RCPs of each reactor plant. Exercising these valves to the closed position, during power operation, could result in extensive pump damage due to the interruption of cooling water flow. Inadvertent valve failure in the closed position during testing would require plant shutdown, in addition to causing pump damage. The control circuitry associated with these valves does not provide for partial stroke capability.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the closed position in accordance with the requirements of Part 10-4.2.1 during cold shutdowns when the RCPs can be removed from service. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 13

COMPONENTS: 11CS36, 12CS36
21CS36, 22CS36

FUNCTION:

These motor operated valves are located in the residual Heat Removal (RHR) heat exchanger discharge cross-connects to the Containment Spray (CS) system. These valves perform an active safety function in the open and closed positions. The valves must be capable of opening to align the RHR heat exchangers to the CS system and closing to terminate containment spray during the post-accident recirculation phase. The valves also perform a inactive safety function in the closed position to prevent diversion of CS flow during the containment spray mode of operation.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Open & Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

The CS36 motor operated valves remain in the closed position during normal plant operation to isolate the RHR heat exchanger from the Containment Spray system. Exercising these valves to the full or partially open position at power is not possible due to the presence of interlocks between Safety Injection system containment sump isolation valves (SJ44). These interlocks prevent the opening of the CS36 valves unless the containment sump isolation valves (SJ44) are full open. Opening the SJ44 valves individually at power would require closure of RHR Pump Suction valve RH4, restoration of control power to the SJ44 valve (removed per TS 4.5.2.a.1) and entry into a 72 hour LCO for one ECCS subsystem inoperable. UFSAR 7.3.2.7 also takes credit for control power being removed from the SJ44 valve circuit during normal operation. Inadvertent containment sump isolation valve failure in the open position during testing would require a plant shutdown and subsequent manway removal to gain access to the SJ44 valve.

ALTERNATE TESTING:

The CS36 valves shall be exercised to the open and closed positions in accordance with the requirements of Part 10-4.3.2 during cold shutdown. Valve exercising will require alternating RHR loops, if operating in the shutdown-cooling mode, to prevent spray down of the containment. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 14

COMPONENTS: 1CV7
2CV7

FUNCTION:

These normally open, fail-closed air operated valves are located in the inlet line to the letdown heat exchanger from the regenerative heat exchanger. The valve performs an active safety function in the closed position to provide containment isolation. The valve automatically closes on receipt of a Phase A containment isolation signal.

CATEGORY: A

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These air operated valves are maintained in the open position to provide a flow path from the Reactor Coolant System (RCS) to the Chemical Volume Control System (CVCS) during normal letdown operation. This flow path is required during all phases of plant operation to maintain proper reactor coolant inventory by means of a continuous feed and bleed process. Exercising these valves to the closed position at power would require isolating normal letdown flow through the regenerative heat exchanger and placing excess letdown in operation. Isolation of the regenerative heat exchanger would prevent the transfer of heat from the letdown flow to the charging flow. This creates the potential of thermal shock to the RCS charging inlet nozzle branch connections and thermal sleeves by the injection of relatively cold water. The injection of cold water could also result in a power transient and RCS instability during plant operation. Additionally, the valve control circuitry is not provided with partial stroke capability.

ALTERNATE TESTING:

These valves shall be exercised to the closed position in accordance with the requirements of Part 10-4.2 during cold shutdown. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 15

COMPONENTS: 1CV40, 1CV41
2CV40, 2CV41

FUNCTION:

These normally open, motor operated valves are located in the charging pumps suction supply from the Volume Control Tank (VCT). The valves perform an active safety function in the closed position to provide isolation between the VCT and the Reactor Water Storage Tank (RWST) during safety injection. The valves close on receipt of a safety injection signal to align the RWST to the charging pump suction.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These motor operated valves are maintained in the open position to align the VCT to the charging pumps to support normal charging. This flow path is required during all phases of plant operation to maintain proper reactor coolant inventory by means of a continuous feed and bleed process. These valves are interlocked to prevent their closing unless either RWST isolation valve (SJ1 or SJ2) is open. Exercising these valves to the closed position at power would require shifting charging pump suction from the VCT to the RWST. The RWST inventory is 2300 ppm borated water which if injected into the RCS would result in a loss in reactor power and possibly take the reactor subcritical. Additionally, the valve control circuitry is not provided with partial stroke capability.

ALTERNATE TESTING:

These valves shall be exercised to the closed position in accordance with the requirements of Part 10-4.2 during cold shutdown. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 16

COMPONENTS: 1CV68, 1CV69
2CV68, 2CV69

FUNCTION:

These normally open, motor operated valves are located in the charging line to the regenerative heat exchanger. The valves perform an active safety function in the closed position to provide containment isolation and to isolate the Chemical Volume Control System (CVCS) charging line during a safety injection. The valves close on receipt of a safety injection signal. The valves also perform a passive safety function in the open position to permit passage of charging flow from the Charging Pumps to the Reactor Coolant System Cold Leg. This flow path is also utilized during emergency boration.

CATEGORY: A

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These motor operated valves are maintained in the open position to provide a flow path for normal charging. This flow path is required during all phases of plant operation to maintain proper reactor coolant inventory by means of a continuous feed and bleed process. Exercising these valves to the closed position at power would interrupt normal charging flow, which could cause a loss of pressurizer level control resulting in a reactor trip. Additionally, the valve control circuitry is not provided with partial stroke capability.

ALTERNATE TESTING:

These valves shall be exercised to the closed position in accordance with the requirements of Part 10-4.2 during cold shutdown. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 17

COMPONENTS: 1CV75
2CV75

FUNCTION:

These air operated valves are located in the respective auxiliary spray line to the pressurizer from the Chemical Volume Control (CVC) system and serves as the auxiliary pressurizer spray isolation valve. The valve performs an active safety function in the open and closed position. If open during plant depressurization without the reactor coolant pumps, the valves would be required to close to limit plant pressurization rate and plant cooldown rate. The valve must be capable of opening to provide a means of pressurizer depressurization utilizing the charging system. This function may be required to depressurize the reactor Coolant (RCS) to achieve cold shutdown when the reactor coolant pumps are unavailable.

CATEGORY: B

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These air-operated valves are maintained in the closed position during power operation to isolate the RCS from the charging system. Exercising the valves to the open position at power is not possible because it would allow the injection of relatively cold water into the pressurizer resulting in pressure control instability and possible reactor trip. The valve control circuitry does not provide for Partial stroke capability.

ALTERNATE TESTING:

These air-operated valves shall be exercised to the open and closed positions during cold shutdown in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 18

COMPONENTS: 1CV76
2CV76

FUNCTION:

These check valves are located in the auxiliary spray line to the pressurizer from the Chemical Volume Control (CVC) system and serve as the auxiliary pressurizer spray injection check valves. These valves perform an active safety function in the open position. These valves must be capable of opening to provide a flow path for pressurizer depressurization utilizing the charging system. This function may be required to depressurize the Reactor Coolant System (RCS) to achieve cold shutdown when the reactor coolant pumps are unavailable.

CATEGORY: C

CLASS: 1

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

This check valve is maintained in the closed position during power operation by RCS pressure on the downstream side of the disk. Exercising this valve to the full or partial open position at power is not possible because it would allow the injection of relatively cold water into the pressurizer resulting in pressure control instability in the system and possible reactor trip.

ALTERNATE TESTING:

This check valve shall be full stroke exercised to the open position during cold shutdown in accordance with the requirements of Part 10-4.3.2. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 19

COMPONENTS: 1CV78, 1CV80, 1CV274, 1CV275
2CV78, 2CV80, 2CV274, 2CV275

FUNCTION:

These check valves are located in the charging piping of the Chemical & Volume Control System. The valves perform an active safety function in the open position. The valves must be capable of opening for emergency boration operation in the absence of a safety injection signal. These valve have no safety function in the closed position.

CATEGORY: C

CLASS: 1

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During plant operation the charging system is in operation and normal charging flow exceeds emergency boration flow requirements. Partial flow credit is conservatively taken on a quarterly frequency since it cannot be determined if the spring-loaded thermal relief check valve is seated during the test. The spring loaded relief device (CV273) is located in a parallel path with a set point of 2 psig for Unit 1 and 75 psig for Unit 2. Potential bypass leakage through a potentially open thermal relief valve is not required to be postulated when performing simple check valve testing. Due to the low set point of the Unit 1 spring loaded thermal relief check valve it is prudent to isolate the relief device during cold shutdown and demonstrate that the above check valves can pass the required flow. Isolation of the thermal relief check valve is performed at cold shutdown due to the location of the manual isolation valve (CV272) inside the regenerative heat exchanger room and the conditions that exist during normal plant operation.

ALTERNATE TESTING:

These check valves shall be credited as partially exercised quarterly and exercised to the full open position during cold shutdowns with the spring loaded thermal relief check valve isolated using the upstream manual isolation valve. This alternate testing, although justifiably not required due to the higher 75 psig set-point, is applied at Unit 2 to provide consistency in test methodology between the units. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 20

COMPONENTS: 1CV116, 1CV284
2CV116, 2CV284

FUNCTION:

These normally open, motor operated valves are located in the Reactor Coolant Pump (RCP) seal water return lines to the seal water filter. The valves perform an active safety function in the closed position to provide containment isolation and automatically close on receipt of a Phase A containment isolation signal.

CATEGORY: A

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These motor operated valves are maintained in the open position to provide a path for seal water return flow. This flow path is required to support continued operation of the RCPs. Exercising these valves to the closed position at power would interrupt seal water return flow, which could cause damage to the pump seals resulting in a reactor shutdown or plant trip. Additionally, the valve control circuitry is not provided with partial stroke capability.

ALTERNATE TESTING:

These valves shall be exercised to the closed position in accordance with the requirements of Part 10-4.2 during cold shutdown. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 21

COMPONENTS: 1CV176
2CV176

FUNCTION:

These check valves are located in the rapid boration line from the boric acid tank to the charging pump suction supply. The operational function is to provide isolation between the charging pump suction supply header and the boric acid tanks. This function prevents diversion of flow and dilution of the boric acid tank inventory during quarterly exercising of upstream motor operated valve CV175. The valves perform an active safety function in the open position to allow passage and to provide a flow path during emergency boration in the absence of an safety injection signal.

CATEGORY: C

CLASS: 2

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

These check valves are normally in the closed position due to upstream power operated valve CV175 being maintained in the closed position. Exercising this valve to the open position would require initiating flow from the boric transfer pump to the charging pump suction supply. This is not feasible, nor practical during normal operation. Injection of highly concentrated boric acid into the reactor coolant system from the boric acid tank would result in a loss in reactor power and possibly take the reactor subcritical. Partial exercising would result in the same consequences as full exercising.

ALTERNATE TESTING:

The valve shall be exercised to the open position in accordance with the requirements of Part 10-4.3.2 during cold shutdown. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 22

COMPONENTS:

11DA13A, 13B, & 13C	21DA13A, 13B, &13C
12DA13A, 13B, & 13C	22DA13A, 13B, &13C
11DA14A, 14B, & 14C	21DA14A, 14B, &14C
12DA14A, 14B, & 14C	22DA14A, 14B, &14C

FUNCTION:

These solenoid operated globe valves are located in the air supply lines to the diesel generator starting air motors from the starting air receivers. These valves perform an active safety function in the open position. The valves must be capable of opening when the associated engine receives a start signal to provide a flow path for starting air to the engine.

CATEGORY: B

CLASS: NONE

TEST REQUIREMENTS:

Open Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

The four (4) solenoid valves per generator are exercised together during monthly diesel generator start testing however, individual valve operation is not readily determined. These valves are maintained in the closed position and are not provided with remote position indication to facilitate individual valve testing. Individual open exercising is accomplished by depressing the individual valve/air start motor test button while simultaneously listening for air start motor operation and monitoring the engine RPM indicator. During this test evolution the engine overspeed trip mechanism is manually engaged, rendering the engine inoperable. This augmented test activity is not practicable during normal operation due to the extent of manual action required to restore the engine should an accident occur.

ALTERNATE TESTING:

These valves shall be individually full stroke exercised to the open position on an augmented program basis during cold shutdowns. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months. Valve exercising is accomplished by depressing the individual valve test button while simultaneously listening for air start motor operation and monitoring the engine RPM indicator without starting the Diesel. This test activity is adequate to verify individual valve open exercise requirements.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 23

COMPONENTS: 11MS10, 12MS10, 13MS10, 14MS10
21MS10, 22MS10, 23MS10, 24MS10

FUNCTION:

These air operated, fail-closed valves are the steam generator atmospheric dump valves. The valves perform an active safety function in the open and closed positions. The valves are credited in UFSAR 15.2.9 as being capable of opening during a station blackout (SBO) to assist in maintaining the plant at hot standby until AC power is restored. The valves must be capable of closure, if open, for steam generator pressure control and to isolate the affected steam generator during a steam generator tube rupture.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Open & Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These valves are normally in the closed position to maintain pressure boundary integrity of the main steam headers. Exercising these valves to the open position during power operation would require closing the manual block valve to prevent the release of steam to the atmosphere. The closure of the 6" pipe diameter manual valves to facilitate quarterly valve exercising exposes the operator to potential heat stress and burn hazard conditions, and could complicate recovery actions if a transient were to occur when the MS10 valves are isolated. The valve control circuitry is not provided with partial stroke capability. Quarterly valve exercising is therefore considered impracticable without a compensating increase in the level of quality and safety.

ALTERNATIVE TESTING:

Previous problems associated with these valves (i.e. controller reset wind-up) no longer exists and would not have been detected by quarterly inservice testing. It is therefore appropriate that these valves be exercised in accordance with the requirements of Part 10-4.2.1 during cold shutdowns. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 24

COMPONENTS: 11MS167, 12MS167, 13MS167, 14MS167
21MS167, 22MS167, 23MS167, 24MS167

FUNCTION:

These valves function as the main steam isolation valves (MSIVs). The MSIVs perform an active safety function in the closed position. The valves must be capable of automatic closure in the event of a main steam line break inside or outside of containment. Valve design is such that flow is stopped from either direction when the valve is closed. Additionally, loss of air to the MSIV steam dump valves MS169 and/or MS171 results in their failing to the open position which dumps steam from the MS167 actuator allowing the MSIV MS167 valve to go closed.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These valves are located in the flow path for steam from the steam generators to the main turbine and remain in the open position during normal operation. Valve exercising during power operation would result in a power reduction, isolation the associated steam generator from the main steam line which is not permissible and possibility of plant trip. Plant Technical Specifications (3.4.5 for Salem 1 & 3.4.6 for Salem 2) requires each steam generator to be operable during Modes 1, 2, 3 and 4. TS 3.7.1.5 require all main steam isolation valves to be operable during Modes 1, 2, and 3. The valve actuating circuitry does not provide for controlled partial stroke capability.

ALTERNATE TESTING:

The MSIV MS167 steam operated valves shall be exercised to the closed position during startup following cold shutdown in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 25

COMPONENTS: 11MS169, 12MS169, 13MS169, 14MS169
11MS171, 12MS171, 13MS171, 14MS171
21MS169, 22MS169, 23MS169, 24MS169
21MS171, 22MS171, 23MS171, 24MS171

FUNCTION:

These valves function as the Main Steam Isolation (MSIV) dump valves. The MSIV MS169 and MS171 dump valves perform an active safety function in the open position. Actuation of the MSIV MS167 valve is accomplished by venting steam off the top of the power piston via the MSIV MS169 and/or MS171 dump valves. This creates a pressure imbalance shift, which drives the MSIVs closed using high pressure steam to isolate the steam line. Venting control air to open the MSIV MS169 and MS171 dump valves provides fail-safe (closed) design for the MSIV MS167 valve on loss of control air.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Open Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

The normally closed MS169 and MS171 valves are located in the vent path for dumping steam from the MSIV actuator. Valve exercising to the open position during power operation without using the motor operated three-way valve would result in closure of the associated MSIV. The motor operated three-way valve is located between the MSIV and the associated dump valves (MS169/MS171) and is aligned such that in mid-position both vent paths provide discharge capability. This three-way valve could be utilized to allow individual exercising of the dump valves however, if three-way valve seat leakage is at a rate greater than that which can be replenished through the MSIV equalizing orifice in the piston, the MSIV will go closed. Inadvertent closure of a MSIV during power operation could result in a power transient potentially placing the reactor plant in an unstable condition. The MS169 and MS171 dump valve actuating control circuitry does not provide for partial stroke capability.

ALTERNATE TESTING:

The MS169 and MS171 air operated valves shall be exercised to the open position during startup following cold shutdown in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 26

COMPONENTS: 1PR1, 1PR2
2PR1, 2PR2

FUNCTION:

These valves function as the pressurizer power operated relief valves (PORVs). The PORVs perform an active safety function in the open and closed positions. The valves must be capable of opening, during plant shutdown conditions, to provide low temperature overpressure protection as required by 10CFR50 Appendix G. The valves must be capable of closure, if open, to limit the loss of Reactor Coolant System (RCS) inventory.

CATEGORY: B

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These normally closed air operated valves provide RCS pressure control, when required, by discharging to the pressurizer relief tank. Exercising these valves to the open position at power could result in a loss of RCS inventory (small break LOCA) should the valve fail to reclose with a single active failure of the associated block valve. Additionally, the low temperature overpressure protection function is not required during power operation. Quarterly exercising these valves is impractical without a compensating increase in the level of quality and safety. Ref. NUREG-1482, 4.4.1 for concurrence on PORV cold shutdown testing.

ALTERNATE TESTING:

These air-operated valves shall be exercised to the open and closed positions during cold shutdown in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 27

COMPONENTS: 1PS1, 1PS3
2PS1, 2PS3

FUNCTION:

These valves serve as the pressurizer spray valves. The process function of these valves is to provide a means to reduce primary system pressure during non-safety related operational transients to preclude the actuation of the pressurizer safety valves. Spray operation for pressure control using the spray valves relies on reactor Coolant Pump (RCP) operation to provide the spray driving force. RCP operation during design basis accidents is neither required or assumed. These valves perform an active safety function in the closed position. The valves must be capable of closure, if open, coincident with a loss of offsite power. This capability ensures adequate flow is directed to the pressurizer if auxiliary spray is used for depressurization.

CATEGORY: B

CLASS: 1

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These normally closed, air operated valves operate automatically during power operation to maintain RCS system pressure within limits during normal operational transients. Fully opening these valves during power operation for the purpose of performing exercise tests to the closed position could result in an undesirable RCS pressure transient.

ALTERNATE TESTING:

These air-operated valves shall be exercised to the closed position during cold shutdown in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 28

COMPONENTS: 1RC40, 1RC41, 1RC42, 1RC43
2RC40, 2RC41, 2RC42, 2RC43

FUNCTION:

These valves are located in the reactor vessel head vent piping and function as the head vent valves. The valves perform an active safety function in the open and closed positions. The valves must be capable of opening during post accident conditions to vent non-condensable gases from the Reactor Pressure Vessel (RPV) head to ensure natural circulation for core cooling. The vented gases are discharged to the Pressureizer Relief tank (PRT). The valves must be capable of closing, if open, to maintain RCS pressure boundary integrity.

CATEGORY: B

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These normally key-lock switch-closed, fail-closed, solenoid operated valves provide RCS pressure boundary integrity and have power removed during plant operation. These valves are used only during plant startup and post accident condition. These valves are installed in series and cross connected with two valves in each path. It is not practical to exercise these valves during power operation, hot standby, or hot shutdown because the valve design and installation is such that testing can cause "burping" (momentary 1 to 2 sec. opening) of the second closed valve. Exercising these valves at power potentially results in radioactive discharge of reactor coolant to the PRT. Additionally, testing at power under a higher differential pressure than would be experienced during post accident conditions may affect valve indication due to sensitive reed switch positions resulting in unnecessary plant shutdown. TS 3.4.12 requires the vent paths to be closed during plant operation.

ALTERNATE TESTING:

These valves shall be exercised to the open and closed positions during cold shutdown in accordance with the requirements of Part 10-4.2.1 and once per 18 months IAW Technical Specification (TS) 4.4.12.2. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 29

COMPONENTS: 1RH1, 1RH2
2RH1, 2RH2

FUNCTION:

These valves are located in the respective Reactor Coolant System RCS No.11 and 21 hot leg supply to the Residual Heat Removal (RHR) pump suction. The valves perform an active safety function in the open and closed positions. The valves must be capable of opening to provide a flow path for RHR suction from the (RCS) hot leg loop during the shutdown cooling mode of RHR subsequent to a loss of offsite power without safety injection. Additionally, the valves must also be capable of opening to ensure that a relief path exists from the RCS loop to the RHR suction line relief valve when the RCS is at low pressure and water solid. If open, the valves must be capable of closing for alignment to cold leg recirculation. Additionally, these valves perform a containment isolation and pressure isolation function. The pressure isolation function prevents exposing the low pressure RHR system piping to RCS pressure.

CATEGORY: A

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During plant operation these normally closed, motor operated valves provide a pressure boundary barrier between the low pressure piping and components of the RHR system and the high pressure of the RCS. Exercising these valves at power is not possible due to interlocks with RCS pressure channels which prevent their opening when RCS pressure is > 375 psig.

ALTERNATE TESTING:

These valves shall be exercised to the open and closed positions during startup following cold shutdown in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 30

COMPONENTS: 11RH8, 12RH8
21RH8, 22RH8,

FUNCTION:

These check valves are located in the discharge piping of the Residual Heat Removal (RHR) pumps. The valves perform an active safety function in the open and closed positions. The valves must be capable of opening upon RHR system initiation to accomplish emergency core cooling when reactor pressure has decreased to the point to allow low pressure injection. The valves must be capable of closure to prevent diversion of flow from an inservice RHR pump through an idle or failed pump in lieu of providing accident flow to the reactor.

CATEGORY: C

CLASS: 2

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During plant operation the RHR pumps are maintained in a standby condition, therefore these check valves remain in the closed position. Forward exercising these check valves at power would require utilizing the full flow test loop recirculating back to the RWST. Utilizing this test loop requires opening manual valve RH21 to align the pump discharge to the RWST. Should this valve seize in the open position or system initiation occur during testing, the LPSI mode of RHR would be compromised by allowing pump flow to be diverted to the RWST. Additionally, RH21 is a Category A passive valve due to the test line being a potential leakage path for radioactive contaminates to a tank vented to atmosphere when RHR is operating in the recirculation mode. Opening and closing RH21 to facilitate pump testing is burdensome due to the necessity of verifying leak tight integrity subsequent to closure.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position and the partially open position during quarterly pump testing and to the full open position during cold shutdowns when the RHR is operating in the shutdown cooling mode. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 31

COMPONENTS: 11RH18, 12RH18
21RH18, 22RH18

FUNCTION:

The valves perform an active safety function in the open position as a subsystem of the ECCS designed to deliver high flow to the core at low pressures. Abnormal operating procedures specify that these valves are throttled during the post-accident recirculation phase therefore they are considered active valves. If closed, the valves must be capable of opening to allow RHR flow from the heat exchangers during safety injection, recirculation and shutdown cooling modes of RHR. These air operated valves are used for throttling the discharge flow from the Residual Heat Removal (RHR) heat exchangers to maintain the cooldown rate during normal shutdown activities.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Open Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During plant operation these valves are maintained in the fail open position with their control air removed to protect against inadvertent mispositioning and to ensure the RHR injection flow path is maintained to the Reactor Coolant System. Exercising these valves at power would require restoring control air to facilitate valve exercising. Subsequent failure in the closed position would render the applicable RHR flow path through the associated heat exchanger inoperable. Testing would require restoration of control power to the valve and entry into a 72 hour LCO (TS 3.5.2) with one ECCS subsystem inoperable. Using the guidance of NUREG 1482, testing can be deferred to cold shutdown if inservice testing results in repositioning of breakers from "off" to "on" or involves a hardship; i.e., the necessity of manual operator actions to restore the system if an accident occurred. Minimizing the potential for misaligment of RHR valves is consistent with the guidance in IE Notice 87-01. Quarterly valve exercising is impractical without a commensurate increase in the level of quality an safety.

ALTERNATE TESTING:

These air-operated valves shall be exercised to the open position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 32

COMPONENTS: 11RH19, 12RH19, 21RH19, 22RH19

FUNCTION:

These motor operated valves are located in the cross connect of the RHR heat exchanger discharges. The valves perform a passive safety function in the open position and an active safety function in the closed position. The valves are maintained in the open position, at power, to provide a flow path for both RHR pumps to supply all four RCS cold legs during the injection phase. The valves must be capable of closure during the cold leg recirculation mode when RWST inventory is depleted.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During plant operation these valves are maintained and verified in the open position per TS 4.5.2.a.2 to ensure ECCS subsystems are aligned as assumed in the design basis for the ECCS-LOCA. This requirement ensures valves are not inadvertently mispositioned, thereby providing injection capability into all four RCS cold legs. Exercising these RHR crosstie valves at power would result in rendering both trains of RHR inoperable. Testing would require restoration of control power to the valve and entry into a one hour LCO (TS 3.5.2) with both ECCS subsystems inoperable for surveillance testing. Using the guidance of NUREG 1482, testing can be deferred to cold shutdown if inservice testing results in both ECCS subsystems being completely removed from service or if testing a valve whose failure in a non-conservative position during cycling would cause a loss of system function. It should be noted that in May 1989 PSE&G proposed TS changes to eliminate the reporting requirement when an action statement is entered as a result of periodic inservice testing at full power. Entry into the one hour LCO when performing valve testing without reporting was approved per SER to TS Amendments 70 and 94 however, the guidance of NUREG 1482 is currently utilized to justify cold shutdown frequency testing.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN JUSTIFICATION CS-33

COMPONENTS: 1RH26, 2RH26

FUNCTION:

These motor operated valves are located in the flow path to the RCS hot legs. The valves perform a active safety function in the open position. The valves must be capable of opening to provide a flow path for mode 4 LOCA mitigation and recirculation flow via the RCS hot legs. These normally closed valves also perform a active safety function in the closed position to provide containment isolation during power operation in Modes 1 through 3.

CATEGORY: B

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

BASIS FOR RELIEF:

During power operation, the RH26 valve is maintained and verified in the closed position per TS 4.5.2.a.2 to ensure ECCS subsystems are aligned as assumed in the design basis for the ECCS-LOCA. This requirement ensures valves are not inadvertently mispositioned, thereby providing injection capability into all four RCS cold legs. Exercising these RHR hot leg injection valves at power would result in rendering both trains of RHR inoperable. Testing would require restoration of control power to the valve and entry into a one hour LCO (TS 3.5.2) with both ECCS subsystems inoperable for surveillance testing. Using the guidance of NUREG 1482, testing can be deferred to cold shutdown if inservice testing results in both ECCS subsystems being completely removed from service or if testing a valve whose failure in a non-conservative position during cycling would cause a loss of system function.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the open and closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 34

COMPONENTS: 2RH75, 2RH76

FUNCTION:

These check valves are located in the suction piping of the Residual Heat Removal (RHR) pumps. The valves perform an active safety function in the open position. The valves must be capable of opening upon RHR system initiation to accomplish emergency core cooling when reactor pressure has decreased to the point to allow low-pressure injection. The valves must be capable of closure to prevent diversion of flow and deadheading of one RHR pump when both RHR pumps are in operation (ref. non-IST commitment CO516 - PSLT N93106 for reverse flow test information). This is required in the unlikely event that one RHR pump develops a greater discharge head over the other inservice pump.

CATEGORY: C

CLASS: 2

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During plant operation the RHR pumps are maintained in a standby condition, therefore these check valves remain in the closed position. Forward exercising these check valves at power would require utilizing the full flow test loop recirculating back to the RWST since the return of the minimum flow line is down stream. Utilizing this test loop requires opening manual valve RH21 to align the pump discharge to the RWST. Should this valve seize in the open position or system initiation occur during testing, the LPSI mode of RHR would be compromised by allowing pump flow to be diverted to the RWST. Additionally, RH21 is a Category A passive valve due to the test line being a potential leakage path for radioactive contaminates to a tank vented to atmosphere when RHR is operating in the recirculation mode. Opening and closing RH21 to facilitate pump testing is burdensome due to the necessity of verifying leak tight integrity subsequent to closure.

ALTERNATE TESTING:

These check valves shall be exercised to the full open position during cold shutdowns when the RHR is operating in the shutdown-cooling mode. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 35

COMPONENTS: 1SJ30, 2SJ30

FUNCTION:

These motor operated valves are located in the suction supply line from the reactor Water Storage Tank (RWST) to the Safety Injection (SI) pumps. These valves perform an active safety function in the closed position. These valves must be capable of closure during the recirculation phase of safety injection to prevent backflow from the Residual Heat Removal (RHR) heat exchanger discharge to the RWST. Additionally, closure of these valves during the recirculation phase prevents the potential release of radioactivity to the atmosphere via the RWST vent. These valves perform a passive safety function in the open position to provide a flow path from the RWST to the respective SI pump suction.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During plant operation these valves are maintained in the open position per TS 4.5.2.a.1 with the power removed from the operator to ensure Emergency Core Cooling System (ECCS) subsystem operability. Preventing valve mispositioning ensures intermediate head safety injection capability to the Reactor Coolant System (RCS). Exercising these valves at power, with subsequent failure in the closed position, would result in rendering both SI pumps inoperable. Testing would require restoration of control power to the valve and entry into a one hour LCO (TS 3.5.2) with both ECCS subsystems inoperable for surveillance testing. Using the guidance of NUREG 1482, testing can be deferred to cold shutdown if inservice testing results in both ECCS subsystems being completely removed from service or if testing a valve whose failure in a non-conservative position during cycling would cause a loss of system function. It should be noted that, in May 1989, PSE&G proposed TS changes to eliminate the reporting requirement when an action statement is entered as a result of periodic inservice testing at full power. Entry into the one hour LCO when performing valve testing without reporting was approved per SER to TS Amendments 70 and 94 however, the guidance of NUREG 1482 is currently utilized to justify cold shutdown frequency testing.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns the valve need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 36

COMPONENTS: 11SJ40, 12SJ40, 21SJ40, 22SJ40

FUNCTION:

These motor operated valves are located in the respective Safety Injection (SI) pumps discharge to the RCS hot legs. The valves perform an active safety function in the open and closed position. The valves must be capable of opening during the hot leg recirculation phase to provide a path for SI flow to each respective hot leg of the Reactor Coolant System (RCS) loop. The valves perform an active safety function in the closed position for containment isolation if required during the recirculation phase of operation. These valves also perform an inactive safety function to act as Class 1 to Class 2 boundary barrier valves to ensure safety injection flow is properly directed to the RCS during the injection phase and cold leg recirculation mode of operation.

CATEGORY: B

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During plant operation these valves are maintained in the closed position per TS 4.5.2.a.1 with the power removed from the operator to ensure emergency Core Cooling (ECCS) subsystem operability. Preventing valve mispositioning ensures intermediate head safety injection capability to the RCS cold legs. Exercising these valves individually at power, with subsequent failure in the open position, would result in rendering one ECCS subsystem incapable of performing its design safety function during the injection phase. Testing would require restoration of control power to the valve and entry into a 72 hour LCO (TS 3.5.2) with one ECCS subsystem inoperable. Using the guidance of NUREG 1482, testing can be deferred to cold shutdown if inservice testing results in unnesessary cycling of equipment, repositioning of breakers from "off" to "on" or involves a hardship; i.e., the necessity of manual operator actions to restore the system if an accident occurred. It should be noted that, in May 1989, PSE&G proposed TS changes to eliminate the reporting requirement when an action statement is entered as a result of periodic inservice testing at full power. Entry into the one hour LCO when performing valve testing without reporting was approved per SER to TS Amendments 70 and 94 however, the guidance of NUREG 1482 is currently utilized to justify cold shutdown frequency testing.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the open and closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 37

COMPONENTS: 11SJ44, 12SJ44, 21SJ44, 22SJ44

FUNCTION:

These motor operated valves are located in the supply lines from the containment sump to the respective Residual Heat Removal (RHR) pump suction. The valves perform an active safety function in the open and closed position. The valves must be capable of opening to align the containment sump to the Emergency Core Cooling System (ECCS) subsystem during the recirculation phase of emergency core cooling. These valves perform an active closed safety function to provide containment isolation if required during the recirculation phase of operation. These valves also provide a inactive safety function in the closed position to properly align ECCS subsystems to the Reactor Water Storage Tank (RWST) during the injection phase of emergency core cooling, and to prevent the RWST inventory backflow to the containment sump.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Open & Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During plant operation the SJ44 valves are maintained in the closed position to prevent backflow from the RWST to the containment sump, and to ensure that ECCS subsystems are properly aligned for the injection phase of emergency core cooling. Opening the SJ44 valves individually at power would require closure of RHR Pump Suction valve RH4, restoration of control power to open the SJ44 valve (removed per TS 4.5.2.a.1) and entry into a 72 hour LCO for one ECCS subsystem inoperable. UFSAR 7.3.2.7 also takes credit for control power being removed from the SJ44 valve circuit during normal operation. Inadvertent containment sump isolation valve failure in the open position during testing would require a plant shutdown and subsequent manway removal to gain access to the SJ44 valve. It should be noted that, in May 1989, PSE&G proposed TS changes to eliminate the reporting requirement when an action statement is entered as a result of periodic inservice testing at full power. Entry into the one hour LCO when performing valve testing without reporting was approved per SER to TS Amendments 70 and 94 however, the guidance of NUREG 1482 is currently utilized to justify cold shutdown frequency testing.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the open and closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 38

COMPONENTS: 11SJ45, 12SJ45, 21SJ45, 22SJ45

FUNCTION:

These motor operated valves are located in the discharge lines from the Residual Heat Removal (RHR) heat exchangers to the SI and Charging/Safety Injection pumps suction supplies. The valves perform an active safety function in the open position. The valves must be capable of opening to align the containment sump to the Emergency Core Cooling System (ECCS) subsystems during the recirculation phase of emergency core cooling. The valves perform a passive safety function in the closed position to properly align ECCS subsystems to the Reactor Water Storage Tank (RWST) during the injection phase of emergency core cooling, and to prevent the RWST inventory from backflowing to the containment sump.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Open Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During plant operation the SJ45 valves are maintained in the closed position to prevent backflow from the RWST to the containment sump, and to ensure that ECCS subsystems are properly aligned for the injection phase of emergency core cooling. Exercising the SJ45 valves at power requires closure of RHR Pump Suction valve RH4, restoration of control power to open the SJ44 valve (removed per TS 4.5.2.a.1 for Salem 1) and entry into a 72 hour LCO for one ECCS subsystem inoperable. UFSAR 7.3.2.7 also takes credit for control power being removed from the SJ44 valve circuit during normal operation. Inadvertent containment sump isolation valve failure in the open position during testing would require a plant shutdown and subsequent manway removal to gain access to the SJ44 valve. It should be noted that, in May 1989, PSE&G proposed TS changes to eliminate the reporting requirement when an action statement is entered as a result of periodic inservice testing at full power. Entry into the one hour LCO when performing valve testing without reporting was approved per SER to TS Amendments 70 and 94 however, the guidance of NUREG 1482 is currently utilized to justify cold shutdown frequency testing.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the open position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 39

COMPONENTS: 11SJ49, 12SJ49, 21SJ49, 22SJ49

FUNCTION:

These motor operated valves are located in the Residual Heat Removal (RHR) heat exchanger discharge lines to the reactor Coolant System (RCS) cold legs. The valves perform an active safety function in the closed position. The valves must be capable of closure for alignment to the recirculation mode from the injection/containment spray mode of emergency core cooling. The valves perform a passive safety function in the open position to ensure RHR pump discharge flow is properly directed to the RCS cold legs during the injection phase and for decay heat removal during shutdown cooling.

CATEGORY: B

CLASS: 1

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During plant operation these valves are maintained in the open position per TS 4.5.2.a.1 with the power removed from the operator to ensure Emergency Core Cooling system (ECCS) subsystem operability. This requirement ensures against inadvertent mispositioning of the valves, thereby providing RHR low head safety injection capability to the RCS cold legs. Exercising these valves at power, with subsequent failure in the closed position, would result in rendering both ECCS subsystems incapable of performing their design safety function during the injection phase. Testing would require restoration of control power to the valve and entry into a one hour LCO (TS 3.5.2) with both ECCS subsystems inoperable for surveillance testing. Using the guidance of NUREG 1482, testing can be deferred to cold shutdown if inservice testing results in both ECCS subsystems being completely removed from service or if testing a valve whose failure in a non-conservative position during cycling would cause a loss of system function. It should be noted that, in May 1989, PSE&G proposed TS changes to eliminate the reporting requirement when an action statement is entered as a result of periodic inservice testing at full power. Entry into the one hour LCO when performing valve testing without reporting was approved per SER to TS Amendments 70 and 94 however, the guidance of NUREG 1482 is currently utilized to justify cold shutdown frequency testing.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 40

COMPONENTS: 11SJ54, 12SJ54, 13SJ54, 14SJ54,
21SJ54, 22SJ54, 23SJ54, 24SJ54

FUNCTION:

These motor operated valves are located in the respective Safety Injection (SI) accumulator discharge to the RCS cold legs. The valves perform an inactive safety function in the open position to allow accumulator safety injection. These valves are closed during plant cooldown and depressurization to prevent unnecessary injection by the SI Accumulators and to achieve a cold shutdown condition. During a small break LOCA the SJ54 valves are closed in order to allow faster Reactor Coolant System (RCS) depressurization so the RCS leak can be isolated. However, if the valves do not close, then leak isolation will take longer and greater RCS will be released to Containment.

CATEGORY: B

CLASS: 1

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During plant operation these valves are maintained in the open position per TS 4.5.1 with the power removed from the operator to ensure emergency Core Cooling (ECCS) subsystem operability. Preventing valve mispositioning ensures SI accumulator injection capability to the RCS cold legs. Technical Specifications do not allow these valves to be closed at any time in Modes 1, 2 or 3. Exercising these valves individually at power, with subsequent failure in the closed position, would result in rendering the affected SI accumulator incapable of performing its design safety function during the injection phase. Testing would require restoration of control power to the valve and entry into a one hour LCO (TS 3.5.1.b) with one accumulator inoperable.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 41

COMPONENTS: 1SJ67, 1SJ68, 2SJ67, 2SJ68

FUNCTION:

These motor operated valves are located in the safety Injection (SI) pump common minimum flow recirculation line to the Reactor Water Storage Tank (RWST). The valves perform an active safety function in the closed during the recirculation phase to ensure flow is directed to the reactor vessel and to prevent containment fluid from being pumped to the RWST. This function prevents the release of radioactivity to the atmosphere via the RWST vent. The valves perform a passive safety function in the open position during the injection phase of emergency core cooling to protect the SI pumps from overheating during low flow or dead-headed operation.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During power operation these valves are maintained in the open position per TS 4.5.2.a.1 with the power removed from the operator to ensure Emergency Core Cooling System (ECCS) subsystem operability. This requirement assures that the pumps will not be damaged when running at or near shut-off head by inadvertent mispositioning of the valves, thereby providing intermediate head safety injection capability to the RCS cold legs. Exercising these valves at power, with subsequent failure in the closed position, could result in rendering both safety injection pump incapable of performing their design safety function during the injection phase. Testing would require restoration of control power to the valves and entry into a one hour LCO (TS 3.5.2) with both ECCS subsystems inoperable for surveillance testing. Using the guidance of NUREG 1482, testing can be deferred to cold shutdown if inservice testing results in both ECCS subsystems being completely removed from service or if testing a valve whose failure in a non-conservative position during cycling would cause a loss of system function. It should be noted that in May 1989 PSE&G proposed TS changes to eliminate the reporting requirement when an action statement is entered as a result of periodic inservice testing at full power. Entry into the one hour LCO when performing valve testing without reporting was approved per SER to TS Amendments 70 and 94 however, the guidance of NUREG 1482 is currently utilized to justify cold shutdown frequency testing.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 42

COMPONENTS: 1SJ69, 2SJ69

FUNCTION:

These motor operated valves are located in the Residual Heat Removal (RHR) pump suction supply from the Reactor Water Storage Tank (RWST). The valves perform an active safety function in the closed position during the recirculation phase to prevent backflow from the RHR heat exchanger discharge to the RWST. Valve closure ensures required flow is directed to the reactor vessel during cold leg recirculation and prevents containment sump fluid from being pumped to the RWST. This function also prevents the release of radioactivity to the atmosphere via the RWST vent. The valve performs a passive safety function in the open position during the injection phase of emergency core cooling to provide suction supply to the pump from the RWST.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During power operation these valves are maintained in the open position per TS 4.5.2.a.1 with the power removed from the operator to ensure Emergency Core Cooling System (ECCS) subsystem operability. This requirement ensures against inadvertent mispositioning of the valves, thereby providing low head safety injection capability to the RCS cold legs. Exercising this valve at power, with subsequent failure in the closed position, would result in rendering both RHR pumps incapable of performing their design safety function during the injection phase. Testing would require restoration of control power to the valves and entry into a one hour LCO (TS 3.5.2) with both ECCS subsystems inoperable for surveillance testing. Using the guidance of NUREG 1482, testing can be deferred to cold shutdown if inservice testing results in both ECCS subsystems being completely removed from service or if testing a valve whose failure in a non-conservative position during cycling would cause a loss of system function. It should be noted that, in May 1989, PSE&G proposed TS changes to eliminate the reporting requirement when an action statement is entered as a result of periodic inservice testing at full power. Entry into the one hour LCO when performing valve testing without reporting was approved per SER to TS Amendments 70 and 94 however, the guidance of NUREG 1482 is currently utilized to justify cold shutdown frequency testing.

ALTERNATE TESTING:

These motor operated valve shall be exercised to the closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 43

COMPONENTS: 1SJ135, 2SJ135

FUNCTION:

These motor operated valves are located in the Safety Injection (SI) pump common discharge to the reactor Coolant System (RCS) cold legs. The valves perform an active safety function in the closed position during the switchover from safety injection or cold leg recirculation to the hot leg recirculation phase. The valves perform a passive safety function in the open position to provide a flow path from the SI pumps to the RCS cold legs during safety injection and cold leg recirculation.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During power operation these valves are maintained in the open position per TS 4.5.2.a.1 with the power removed from the operator to ensure Emergency Core Cooling System (ECCS) subsystem operability. This requirement prevents inadvertent mispositioning of the valves, thereby providing intermediate head safety injection capability to the RCS cold legs. Exercising these valves at power, with subsequent failure in the closed position, would result in rendering both safety injection pumps incapable of performing their design safety function during the injection phase. Testing would require restoration of control power to the valves and entry into a one hour LCO (TS 3.5.2) with both ECCS subsystems inoperable for surveillance testing. Using the guidance of NUREG 1482, testing can be deferred to cold shutdown if inservice testing results in both ECCS subsystems being completely removed from service or if testing a valve whose failure in a non-conservative position during cycling would cause a loss of system function. It should be noted that, in May 1989, PSE&G proposed TS changes to eliminate the reporting requirement when an action statement is entered as a result of periodic inservice testing at full power. Entry into the one hour LCO when performing valve testing without reporting was approved per SER to TS Amendments 70 and 94 however, the guidance of NUREG 1482 is currently utilized to justify cold shutdown frequency testing.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the closed position during cold shutdowns in accordance with the requirements of Part 10-4.2.1. In cases of frequent cold shutdowns these valves need not be exercised more often than once every 3 months.

COLD SHUTDOWN TEST JUSTIFICATION - CS - 44

COMPONENTS: 1VC1, 1VC4
2VC1, 2VC4

FUNCTION:

These air-operated valves are located in the primary containment purge supply and exhaust ventilation ductwork and serve as outboard containment isolation valves. These valves perform an active safety function in the closed position. They must be capable of automatic closure, if open, upon receipt of a containment isolation signal or when high radioactivity is detected in primary containment. This function prevents the release of radioactivity from the containment environment in the event of a LOCA.

CATEGORY: A

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These valves are maintained in the closed position during power operation with control air to the valve operators isolated and tagged out of service. Exercising these valves at power, with subsequent failure in the open position, would result in the possibility of compromising primary containment integrity. Additionally, these valves are prohibited by TS 3.6.1.7 from being exercised to the open position whenever primary containment integrity is required. This requirement is also a commitment to the NRC in LER 50-272/79-55/01T.

ALTERNATE TESTING:

These air-operated valves shall be exercised to the closed position during cold shutdown whenever primary containment vent and purge activities are performed via the large volume flow path. In cases of frequent vent and purge activities, these valves need not be exercised more often than once every 3 months. This alternate testing was previously identified in NRC Safety Evaluation dated 4/15/94 (TAC Nos. M88144 and M88145).

COLD SHUTDOWN TEST JUSTIFICATION - CS - 45

COMPONENTS: 1VC2, 1VC3
2VC2, 2VC3

FUNCTION:

These air-operated valves are located in the primary containment purge supply and exhaust ventilation ductwork and serve as inboard containment isolation valves. These valves perform an active safety function in the closed position. They must be capable of automatic closure, if open, upon receipt of a containment isolation signal or when high radioactivity is detected in primary containment. This function prevents the release of radioactivity from the containment environment in the event of a LOCA.

CATEGORY: A

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

These valves are maintained in the closed position during power operation with control air to the valve operators isolated and tagged out of service. Exercising these valves at power, with subsequent failure in the open position, would result in the possibility of compromising primary containment integrity. Also, these valves are prohibited by TS 3.6.1.7 from being exercised to the open position whenever primary containment integrity is required. This requirement is also a commitment to the NRC in LER 50-272/79-55/01T.

ALTERNATE TESTING:

These air-operated valves shall be exercised to the closed position during cold shutdown whenever primary containment vent and purge activities are performed via the large volume flow path. In cases of frequent vent and purge activities, these valves need not be exercised more often than once every 3 months. This alternate testing was previously identified in NRC Safety Evaluation dated 4/15/94 (TAC Nos. M88144 and M88145).

ATTACHMENT 3

REFUELING OUTAGE JUSTIFICATIONS

Salem Units 1 and 2 Inservice Test Program

REFUELING OUTAGE JUSTIFICATION INDEX

NO.	APPLICABLE COMPONENTS UNIT 1	UNIT 2
RJ-01	11/12/13AF53	21/22/23AF53
RJ-02	11/12CA360	21/22CA360
RJ-03	1CA1768/1769/1770/1771	2CA1785/1786/1787/1788
RJ-04	1CC119	2CC119
RJ-05	11/12/13/14CC128	21/22/23/24CC128
RJ-06	1CC186, 1CC208	2CC186, 2CC208
RJ-07	11/12CS4	21/22CS4
RJ-08	11/12CS48	21/22CS48
RJ-09	1CV47/52	2CV47/52
RJ-10	1CV74	2CV74
RJ-11	11/12/13/14CV99	21/22/23/24CV99
RJ-12	1CV296	2CV296
RJ-13	Removed	
RJ-14	1NT26 & 1NT34	2NT26 & 2NT34
RJ-15	1PR25	2PR25
RJ-16	13/14RH27	23/24RH27
RJ-17	1SJ3	2SJ3
RJ-18	11/12/13/14SJ17	21/22/23/24SJ17
RJ-19	1SJ31	2SJ31
RJ-20	11/12SJ34	21/22SJ34
RJ-21	11/12/13/14SJ43	21/22/23/24SJ43
RJ-22	Removed	
RJ-23	1SJ70	2SJ70
RJ-24	11/12/13/14SJ139	21/22/23/24SJ139
RJ-25	11/12/13/14SJ144	21/22/23/24SJ144
RJ-26	1SJ150	2SJ150
RJ-27	11/12/13/14SJ156	21/22/23/24SJ156
RJ-28	1SV1198, 1SV1199	2SV1198, 2SV1199
RJ-29	12/14SW5, 11/12SW47	22/24SW5, 21/22SW47
RJ-30	1SW26	2SW26
RJ-31	11/12SW51, 11/12SW532	21/22SW51, 21/22SW532
RJ-32	11/12SW79	21/22SW79
RJ-33	11/12SW536	21/22SW536
RJ-34	1FP148, 1WR81, 1DR30	2FP148, 2WR81, 2DR30

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION – RJ - 01

COMPONENTS: 11AF53, 12AF53, 13AF53
21AF53, 22AF53, 23AF53

FUNCTION:

These check valves are located in the alternate suction supply piping to the auxiliary feedwater pumps and perform an active safety function in the open position. The valves must be capable of opening to allow passage of design accident flow when the auxiliary feedwater pumps are aligned to their alternate source.

CATEGORY: C

CLASS: 3

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

Exercising these check valves to the open position during normal plant operation or cold shutdown would require utilizing the alternate supply source during pump testing. This is undesirable due to the likelihood of creating adverse chemistry conditions in the steam generators or contaminating the AFST due to the lower water quality of the alternate supply source. Additionally, the lines, which contain these check valves, are maintained in a vented condition during normal plant operation, due to the lines being routed through a vital relay room. If the lines were placed in a solid condition, line leakage could result in extensive damage to electronic components, in addition to causing a reactor trip. Partial stroke exercising would result in the same consequences as full stroke exercising.

ALTERNATE TESTING:

Check valves 13/23AF53 shall be disassembled and inspected during refueling to verify operability. In accordance with the NRC guidance provided in Generic Letter 89-04, Attachment 1, Position 2, a sample disassembly and inspection program shall be implemented for check valves 11/12/21/22AF53 as outlined in Technical Position 5. Partial exercising will be unable to be performed subsequent to reassembly. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 02

COMPONENTS: 11CA360, 12CA360
21CA360, 22CA360

FUNCTION:

These check valves are located in the compressed air supply lines to the containment. The valves are designated as inboard containment isolation valves, and perform an active safety function in the closed position to maintain containment integrity.

CATEGORY: AC

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation these valves remain in the open position to ensure a continuous supply of compressed air to various safety related components located in the containment which are dependent upon compressed air for actuation and control. Exercising these check valves to the closed position would require securing the associated compressed air header, then venting the header while simultaneously applying a temporary pressure source downstream of the check valve. This activity is not practicable during power operation due to the prolonged interruption of control air to various safety related components resulting in a loss of operability, and the necessity to enter containment to perform testing. This test activity is burdensome during cold shutdown due to the abnormal valve alignment and the necessity of using temporary test equipment which could delay plant restart.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position at refuelings during the performance of Type C seat leakage testing. This alternate frequency and method of testing is supported by NUREG - 1482, Paragraph 4.1.4. This alternate testing was previously approved in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

Salem Units 1 and 2 Inservice Test Progam

(NON-CODE) VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 03

COMPONENTS: 1CA1768, 1CA1769, 1CA1770, 1CA1771
2CA1785, 2CA1786, 2CA1787, 2CA1788

FUNCTION:

These check valves are located in the compressed air supply lines to the PORV accumulators. The valves perform an active safety function in the closed position to maintain the pressure boundary integrity of the PORV accumulators upon loss of the normal actuating air supply.

CATEGORY: AC

CLASS: None

TEST REQUIREMENTS:

Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation these valves remain in the closed position. The valves open as required to pressurize the PORV accumulators. Exercising these check valves to the closed position would require securing the associated Control Air header, then venting the header while performing a valve seat leakage or pressure decay test. This activity is not practicable during power operation due to the prolonged interruption of control air to various safety related components resulting in a loss of operability, and the necessity to enter containment to perform testing. Technical Specifications require the pressurizer over-pressure protection system (POPS) to be operable in Modes 5 & 6 when the reactor head is installed and the RCS is not vented. Typically in Cold Shutdown (Mode 5) the RCS is not vented. This test activity is burdensome during cold shutdown due to the abnormal valve alignment and the necessity to utilize temporary test equipment (i.e. LRM, N2 Bottle, Tools, etc.) inside containment which could delay plant restart.

ALTERNATE TESTING:

These check valves shall be exercised on an augmented program basis to the closed position at refuelings by performing seat leakage tests. This alternate test frequency and method of testing is supported by NUREG - 1482, Paragraph 4.1.4. Testing shall be performed in accordance with the provisions of paragraph 4.3.2.2.(e) of OM-10.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 04

COMPONENTS: 1CC119
2CC119

FUNCTION:

This check valve is located in the CCW supply line, which provides cooling water to the RCP bearings and thermal barriers. The valve performs an active safety function in the open position to provide thermal overpressure protection to the associated containment penetration piping and components. The valve is designated as an inboard containment isolation valve, and performs an active safety function in the closed position to maintain containment integrity.

CATEGORY: AC

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation this valve is maintained in the open position by a continuous supply of cooling water flow to the motor bearings and thermal barriers on all four of the RCPs. Exercising this check valve to the closed position would require securing the CCW supply header and applying a temporary pressure source downstream of the valve disk to verify closure. This activity is not possible during power operation due to the necessity of removing all four of the RCPs from service to prevent extensive pump damage. Stopping the Reactor Coolant Pumps at cold shutdown could extend the shutdown period. This test activity is burdensome during cold shutdown due to the necessity of securing the RCP's, entering containment and the use of temporary test equipment, which could delay plant restart.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position at refuelings during the performance of Type C seat leakage testing. This alternate test frequency and method of testing is supported by NUREG - 1482, Paragraph 3.1.1.4. It should be noted that alternate testing to reverse exercise during cold shutdown and during refueling was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04. Cold shutdown testing has been discontinued as recommended by NUREG 1482. Testing shall be performed in accordance with the provisions of paragraph 4.3.2.2.(e) of OM-10.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 05

COMPONENTS: 11CC128, 12CC128, 13CC128, 14CC128
21CC128, 22CC128, 23CC128, 24CC128

FUNCTION:

These check valves are located in the CC supply lines to the RCP thermal barriers. The valves perform an active safety function in the closed position to prevent overpressurization to the CC piping as a result of RCS inleakage subsequent to a breach of the thermal barrier pressure boundary integrity.

CATEGORY: C

CLASS: 3

TEST REQUIREMENTS:

Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation these valves are maintained in the open position by component cooling water supply flow to the RCP thermal barriers. Individually exercising these check valves to the closed position would require securing the CC supply lines to the motor bearing oil coolers and thermal barrier while venting within the isolated boundary upstream of the check valve. Then measuring valve leakage at the vent connection. This activity is not possible during power operation due to the necessity of removing an RCP from service. T.S.3.4.1.1 requires all reactor coolant loops to remain operable during Mode 1. Stopping the Reactor Coolant Pumps during cold shutdown could extend the shutdown period. This test activity is burdensome and hazardous to test personnel during cold shutdown, due to the necessity of entering containment, the manipulation of various manual valves, and the exposure of test personnel to chromated water. This test activity is not only a personnel health and environmental hazard, but could also delay plant restart.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position during refueling outages. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ – 06

COMPONENTS: 1CC186, 1CC208, 2CC186, 2CC208

FUNCTION:

These check valves are located in bypass lines around inboard containment isolation valves CC187 and CC190. The valves perform an active safety function in the open position to provide thermal overpressure protection to the associated containment penetration piping and components. The valves are designated as inboard containment isolation valves, and perform an active safety function in the closed position to maintain containment integrity.

CATEGORY: AC

CLASS: 2

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation these valves are maintained in the closed position by cooling water return flow from the motor bearings and thermal barriers on all four of the RCPs. Individually exercising these check valves to the closed position would require securing the CCW supply and return headers and applying a temporary pressure source downstream of the valve disk to verify closure. Individually exercising these check valves to the open position would require securing the CCW supply and return headers and applying a demineralized supply source upstream of the valves to verify opening capability. These activities are not possible during power operation due to the necessity of removing all four of the RCPs from service to prevent extensive pump damage. Stopping the Reactor Coolant Pumps during cold shutdown could extend the shutdown period. This test activity is burdensome during cold shutdown due to the necessity of securing the RCP's, entering containment and the use of temporary test equipment which could delay plant restart. Partial exercising these valves to the open position would result in the same consequences as full exercising.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position at refuelings during the performance of Type C seat leakage testing. This alternate test frequency and method of testing is supported by NUREG - 1482, Paragraph 3.1.1.4. These check valves shall be exercised to the open position at refuelings. It should be noted that alternate testing to open exercise test during cold shutdown and during refueling was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04. . Cold shutdown testing has been discontinued as recommended by NUREG 1482. Testing shall be performed in accordance with the provisions of paragraph 4.3.2.2.(e) of OM-10.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 07

COMPONENTS: 11CS4, 12CS4
21CS4, 22CS4

FUNCTION:

These check valves are located in the individual containment spray headers. The valves perform an active safety function in the open position. The valves must be capable of opening upon spray pump initiation to allow flow to be directed to the containment spray nozzles.

CATEGORY: C

CLASS: 2

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation the containment spray headers are maintained in a dry condition and no external means exists to facilitate valve exercising. Individually exercising these check valves to the open position would require initiating pump flow. This activity is not possible during power operation without spraying down containment resulting in equipment and lagging damage which would require extensive cleanup and repair. Forward exercising these check valves during cold shutdown is also not possible due to the full flow test line discharging to the refueling cavity which is available only during refueling outages. The likelihood of valve degradation is improbable due to the condition in which the headers are maintained. Therefore, this test activity is burdensome without a commensurate increase in the level of valve reliability.

ALTERNATE TESTING:

These check valves shall be full exercised to the open position during refuelings in accordance with the requirements of Part 10-4.3.2. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 08

COMPONENTS: 11CS48, 12CS48, 21CS48, 22CS48

FUNCTION:

These check valves are located in the individual containment spray headers. The valves perform an active safety function in the open and closed positions. The valves must be capable of opening upon spray pump initiation to allow flow to be directed to the containment spray nozzles. The valves are designated as inboard containment isolation valves, and perform an active safety function in the closed position to maintain containment integrity.

CATEGORY: AC
CLASS: 2

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation the containment spray headers are maintained in a dry condition and no external means exists to facilitate valve exercising. Individually exercising these check valves to the open position would require initiating pump flow. This activity is not possible during power operation without spraying down containment resulting in equipment and lagging damage, which would require extensive cleanup and repair. Forward exercising these check valves during cold shutdown is also not possible due to the full flow test line discharging to the refueling cavity which is available only during refueling outages. Exercising these valves to the closed would require manual isolation of the individual spray header downstream of the check valve while venting upstream, then applying an outside pressure source to verify valve closure. This test activity is not practicable during power operation or cold shutdown due to the necessity for containment entry to isolate the header and apply temporary test equipment, which could delay plant startup. The likelihood of valve degradation is improbable due to the condition in which the headers are maintained.

ALTERNATE TESTING:

These check valves shall be full exercised to the open position during refuelings in accordance with the requirements of Part 10-4.3.2. These check valves shall be exercised to the closed position at refuelings during the performance of Type C seat leakage testing. This alternate test frequency method of testing is supported by NUREG - 1482, Paragraph 4.1.4. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 09

COMPONENTS: 1CV47, 1CV52
2CV47, 2CV52

FUNCTION:

These check valves are located in the respective #11 & #12 and #21 & #22 charging/safety injection pumps discharge lines. The valves perform an active safety function in the open and closed positions. The valves must be capable of opening upon safety injection pump initiation to allow flow to be directed to the RCS cold legs. The valves must also be capable of closure to prevent diversion of flow through an adjacent idle or tripped charging/safety injection pump.

CATEGORY: C

CLASS: 2

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

At power, the centrifugal charging/safety injection pumps are in operation to provide normal charging. Exercising these valves to the full open position would require establishing flow through the safety injection flow path. This is not possible at power due to the interruption of normal charging flow, which could cause a loss of pressurizer level control resulting in a plant trip. Additionally, insufficient expansion volume exists in the reactor vessel to accommodate flow. Exercising these valves to the full open at cold shutdown is not practicable due to the potential of creating a low temperature overpressure condition. Additionally, flow measurement requires the installation of temporary test equipment inside primary containment, which could delay plant restart.

ALTERNATE TESTING:

These check valves shall be partially exercised to the open position during quarterly pump testing and full exercised at refuelings in accordance with the requirements of Part 10-4.3.2. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 10

COMPONENTS: 1CV74
2CV74

FUNCTION:

This check valve is located in the charging line to the respective regenerative heat exchanger. The valve performs an active safety function in the open and closed positions. The valve must be capable of passing required flow for emergency boration in the absence of a SI signal. The valve must also be capable of closure on reversal or loss of flow to provide containment isolation.

CATEGORY: AC

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

At power, the centrifugal charging/safety injection pumps are in operation to provide normal charging flow. Exercising this valve to the closed position would require stopping normal charging flow, then utilizing an outside pressure source to verify valve closure. This is not possible during normal operation. Interruption of charging flow could cause a loss of pressurizer level control resulting in a plant trip. Valve exercising during cold shutdown is impractical due to the necessity of entering primary containment to facilitate the installation of temporary test equipment and to reposition various manual valves. This type of test activity during cold shutdown could potentially delay plant restart.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position at refueling during the performance of Type C seat leakage testing. This alternate frequency and method of testing is supported by NUREG - 1482, Paragraph 4.1.4 and is pre-approved by Generic Letter 89-04. Testing shall be performed in accordance with the provisions of Paragraph 4.3.2.2.(e) of OM-10.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 11

COMPONENTS: 11CV99, 12CV99, 13CV99, 14CV99
21CV99, 22CV99, 23CV99, 24CV99

FUNCTION:

These check valves are located in the CVCS supply lines to the RCP shaft seals. The operational function is to provide a path for CVCS flow to the RCP shaft seals for cooling purposes and to prevent RCS leakage past the #1 seal. The valves perform an active safety function in the closed position, and must be capable of closure on reversal or loss of flow to provide containment isolation.

CATEGORY: AC

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

The RCPs are required to remain in service during normal operation, per T.S. 3.4.1.1, to provide forced circulation of RCS through the reactor to meet heat transfer and power generation requirements. Exercising these check valves to the closed position would require stopping CVCS flow to the associated RCP, then utilizing an outside pressure source to verify valve closure. This is not possible during normal operation. Interruption of CVCS flow to the RCP seals could cause damage to the pump seals resulting in a reactor shutdown or plant trip. Stopping the Reactor Coolant Pumps during cold shutdown could extend the shutdown period. Valve exercising during cold shutdown is impractical due to the necessity of securing the RCP's, entering primary containment to facilitate the installation of temporary test equipment and to reposition various manual valves. This type of test activity during cold shutdown could potentially delay plant restart.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position at refueling during the performance of Type C seat leakage testing. This alternate frequency and method of testing is supported by NUREG - 1482, Paragraph 3.1.1.4 and is pre-approved by Generic Letter 89-04. Testing shall be performed in accordance with the provisions of paragraph 4.3.2.2(e) of OM-10.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 12

COMPONENTS: 1CV296, 2CV296

FUNCTION:

This check valve is located within the containment penetration piping in the CVCS supply lines to the RCP shaft seals. The operational function is to provide a path for CVCS flow to the RCP shaft seals for cooling purposes and to prevent RCS leakage past the #1 seal. The valve performs an active safety function in the open and closed positions. The valve must be capable of closure on reversal or loss of flow to provide containment isolation. The valve must also be capable of opening to provide thermal overpressure protection to the associated containment penetration piping and components.

CATEGORY: AC
CLASS: 2

TEST REQUIREMENTS:

Open & Closed Postion - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

The Reactor Coolant Pumps are required to remain in service during normal operation per T.S. 3.4.1.1, to provide forced circulation of RCS through the reactor to meet heat transfer and power generation requirements. Exercising these valves to the open or closed position would require stopping CVCS flow to the associated RCP, then utilizing a temporary pressure source to verify valve opening and closure capability. This is not possible during normal operation. Interruption of CVCS flow to the RCP seals could cause damage to the pump seal resulting in a reactor shutdown or plant trip. Stopping the Reactor Coolant Pumps during cold shutdown could extend the shutdown period. Valve exercising during cold shutdown is impractical due to the necessity of securing the RCP's, entering primary containment to facilitate the installation of temporary test equipment and to reposition various manual valves. This type of test activity during cold shutdown could potentially delay plant restart. Partial stroke exercising this check valve at power or cold shutdown is not possible due to the inability to verify the passage of flow.

ALTERNATE TESTING:

This check valve shall be exercised to the open and closed positions at refueling. Verification of valve closure shall be accomplished during the performance of Type C seat leakage testing. This alternate frequency and method of closure testing is supported by NUREG - 1482, Paragraph 4.1.4 & 3.1.1.4. It should be noted that alternate testing to open exercise during cold shutdown and during refueling was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04. Cold shutdown testing has been discontinued as recommended by NUREG 1482. Testing shall be performed in accordance with the provisions of paragraph 4.3.2.2.(e) of OM-10.

(NON-CODE) VALVE REFUELING OUTAGE JUSTIFICATION - RJ – 13

Moved to Relief Request V-03

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 14

COMPONENTS: 1NT26, 1NT34
2NT26, 2NT34

FUNCTION:

These check valves are located in the nitrogen supply line to the safety injection accumulators (NT34) and the pressurizer relief tank (NT26). The valves are designated as inboard containment isolation valves for their respective penetrations, and perform an active safety function in the closed position to maintain containment integrity.

CATEGORY: AC

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal operation these check valves remain in the closed position, however periodic nitrogen makeup may be necessary. Exercising these check valves to the closed position would require securing the nitrogen supply, then venting the header while simultaneously applying a temporary pressure source downstream of the check valve to verify valve closure. This activity is not practical during power operation due to the necessity to enter containment to perform testing. This test activity is burdensome during cold shutdown due to the abnormal valve alignment and the necessity of using temporary test equipment inside containment, which could delay plant restart.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position at refuelings during the performance of Type C seat leakage testing. This alternate frequency and method of testing is supported by NUREG - 1482, Paragraph 4.1.4 and is pre-approved by Generic Letter 89-04. Testing shall be performed in accordance with the provisions of paragraph 4.3.2.2.(e) of OM-10.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 15

COMPONENTS: 1PR25, 2PR25

FUNCTION:

This check valve provides a relief path to the PRT for various safety related relief valves. The valve performs an active safety function in the open and closed positions. The valve must be capable of opening to allow passage of relief valve discharge. The valve is designated as an inboard containment isolation valve and performs an active safety function in the closed position to maintain containment integrity.

CATEGORY: AC

CLASS: 2

TEST REQUIREMENTS:

Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal operation this check valve remains in the closed position and is open only in the event of relief valve discharge flow. The normal operating pressure of the PRT is 3 psig, which is insufficient pressure to satisfactorily reverse exercise the check valve. Meaningful reverse exercising this check valve would require securing the relief path downstream of the check valve with a blank flange, then venting the header upstream while simultaneously applying a temporary pressure source downstream of the check valve to verify valve closure. This activity is not possible during power operation due to the necessity of rendering various safety related relief valves inoperable and the need to enter containment to perform testing. This test activity is burdensome and time consuming during cold shutdown due to the use of temporary test equipment inside containment which could delay plant restart.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position at refuelings during the performance of Type C seat leakage testing. This alternate frequency and method of testing is supported by NUREG - 1482, Paragraph 4.1.4. It should be noted that alternate testing to partial flow and disassemble & inspect for the open position and local leak rate testing for the closed position was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04. Partial flow testing and disassembly & inspection has been discontinued since open testing is performed quarterly. Reverse flow testing shall be performed in accordance with the provisions of paragraph 4.3.2.2.(e) of OM-10.

VALVE REFUELING OUTAGE JUSTIFICATION RJ - 16

COMPONENTS: 13RH27, 14RH27, 23RH27, 24RH27

FUNCTION:

These check valves are located in the flow path to the RCS hot legs. The valves perform a active safety function in the open position. The valves must be capable of opening to provide a flow path for mode 4 LOCA mitigation and recirculation flow via the RCS hot legs. These normally closed valves also perform a inactive safety function in the closed position to prevent RCS intersystem leakage during power operation.

CATEGORY: AC

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During power operation, the RH26 valve is maintained and verified in the closed position per TS 4.5.2.a.2 to ensure ECCS subsystems are aligned as assumed in the design basis for the ECCS-LOCA. The referenced check valves are also maintained in the closed position by RCS pressure on the downstream side of the valve disk. Exercising these valves to the full or partial open position at power is impracticable because the RHR pumps do not produce sufficient head to overcome normal operating RCS pressure. Full-stroke exercising these valves to the full or partial open position at cold shutdown is not practicable due to the need to enter containment, remove insulation and install temporary flow instrumentation, which may delay the plant returning to power. The only pratical means of verifying valve closure is by performing a seat leakage test which is not pratical during plant operation or cold shutdown.

ALTERNATE TESTING:

Open exercise testing shall be verified at refuelings by opening RH26 and performing a full flow exercise test by injecting flow into the RCS hot legs. This alternate testing is considered pre-approved in accordance with NUREG 1482, Section 3.1.1 guidelines. Valve closure shall verified at refuelings during seat leakage testing in accordance OM-10, 4.3.2.2.(e). This alternate testing is considered pre-approved in accordance with NUREG 1482, Section 4.1.4 guidelines.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 17

COMPONENTS: 1SJ3
2SJ3

FUNCTION:

This check valve is located in the charging/safety injection pumps suction supply from the respective RWST. The valve performs an active safety function in the open and closed positions. The valve must be capable of opening to provide a flow path from the RWST to the Charging/Safety Injection pumps suction for high head safety injection. The valve must be capable of closure during the switchover to the recirculation phase to prevent backflow from the RHR heat exchanger discharge to the RWST. This function would be necessary in the event the upstream parallel MOVs failed to close during the switchover, thereby satisfying single failure criteria. Additionally, valve closure prevents the potential release of radioactivity to the atmosphere via the RWST vent when inventory in the tank is depleted and ECCS subsystems are operating in the recirculation phase of emergency core cooling.

CATEGORY: C

CLASS: 2

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

At power, the centrifugal charging/safety injection pumps are in operation to provide normal charging with the VCT as the suction supply source. There is no recirculation flow path back to the RWST available during plant operation. Exercising this valve to the full open position during normal operation would require establishing flow through the safety injection flow path with the suction supply from the RWST. This is not possible during normal operation. Not only would normal charging flow be interrupted, but the injection of 2300 ppm boron solution into the RCS would result in negative reactivity rendering the reactor subcrictical. Partial exercising, at power would result in the same consequences as full exercising. Exercising these valves to the full open at cold shutdown is not practicable due to the potential of creating a low temperature overpressure condition as a result of insufficient expansion volume to accommodate required flow rate.

RJ - 17 (Cont.)

ALTERNATE TESTING:

This check valve shall be partially exercised to the open position during cold shutdowns using the normal charging flow path and full stroked exercised at refuelings during the charging/safety injection flow balance. This alternate testing was approved in NRC Safety Evaluation dated August 15, 1995 (TAC Nos. M92008 and M92009).

VALVE REFUELING OUTAGE JUSTIFICATION RJ - 18

COMPONENTS: 11SJ17, 12SJ17, 13SJ17, 14SJ17
21SJ17, 22SJ17, 23SJ17, 24SJ17

FUNCTION:

These check valves are located in the cold leg safety injection headers to the RCS. The valves perform an active safety function in the open position. The valves must be capable of opening to provide a path for safety injection and recirculation flow via the RCS cold legs. These normally closed valves perform a passive safety function in the closed position to prevent RCS intersystem leakage as specified in UFSAR Section 5.2.7.1.5.

CATEGORY: AC
CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

At power, the centrifugal charging/safety injection pumps are in operation to provide normal charging with the VCT as the suction supply source. Exercising these valves to the partial or full open position during normal operation would require establishing flow through the safety injection flow path with the suction supply from the RWST. This is not possible during normal operation. Not only would normal charging flow be interrupted, but the injection of 2300 ppm boron solution into the RCS would result in negative reactivity rendering the reactor subcrictical and possibly requiring reactor shutdown. Exercising these valves to the full or partial open position at cold shutdown is not practicable due to the potential of creating a low temperature overpressure condition as a result of insufficient expansion volume to accommodate required flow rate. Full or partial exercising at cold shutdown would also result in significant RCS dilution and boric acid recovery operation. Additionally, flow measurement to satisfy full stroke exercising requires the installation of temporary test equipment inside primary containment, which could delay plant restart. The only pratical means of verifying valve closure is by performing a seat leakage test, which is not pratical during plant operation or cold shutdown.

ALTERNATE TESTING:

These check valves shall be forward flow exercised at refuelings in accordance with the requirements of Part 10-4.3.2. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04. Valve closure shall verified at refuelings during seat leakage testing in accordance OM-10, 4.3.2.2.(e). This alternate testing is considered pre-approved in accordance with NUREG 1482, Section 4.1.4 guidelines.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 19

COMPONENTS: 1SJ31
2SJ31

FUNCTION:

This check valve is located in the suction supply line from the RWST to the respective No. 11 and 12 or No. 21and 22 SI pumps. The valve performs an active safety function in the open and closed positions. The valve must be capable of closure during the recirculation phase of safety injection to prevent backflow from the RHR heat exchanger discharge to the RWST. Additionally, closure of this valve, during the recirculation phase, prevents the potential release of radioactivity to the atmosphere via the RWST vent in the event upstream MOV fails to close. This valve must also be capable of opening to provide a flow path from the RWST to the safety injection pump suction for emergency core cooling.

CATEGORY: C

CLASS: 2

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

At power, the No. 11 and 12 and the No.21 and 22 safety injection pumps are maintained in the standby condition as an ECCS subsystem. Exercising this valve to the full open position during normal operation would require establishing flow through the safety injection flow path to the RCS with suction supply from the RWST. Utilizing the safety injection flow path to the reactor coolant system is not possible during normal operation because RCS pressure is greater than the shutoff head of the safety injection pumps. Exercising this valve to the full open at cold shutdown is not practicable due to the potential of creating a low temperature overpressure condition as a result of insufficient expansion volume to accommodate required flow rate.

ALTERNATE TESTING:

These check valves shall be partial stroke exercised to the open position during quarterly pump testing and full exercised at refuelings in accordance with the requirements of Part 10-4.3.2. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 20

COMPONENTS: 11SJ34, 12SJ34
21SJ34, 22SJ34

FUNCTION:

These check valves are located in the respective SI pump discharge piping. The valves perform an active safety function in the open and closed positions. The valves must be capable of closure to prevent backflow through a lost or idle safety injection pump when the parallel pump is operating. The valves must be capable of opening to provide a path for safety injection flow to the RCS for emergency core cooling.

CATEGORY: C

CLASS: 2

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

At power, the safety injection pumps are maintained in the standby condition as an ECCS subsystem. Full or partial exercising these valves to the open position during normal operation would require establishing flow through the safety injection flow path to the RCS with the suction supply from the RWST. Utilizing the safety injection flow path to the reactor coolant system is not possible during normal operation because RCS pressure is greater than the shutoff head of the SI pumps. Full or partial exercising these valves to the open position during cold shutdowns is not practicable due to the potential of creating a low temperature overpressure condition as a result of insufficient expansion volume to accommodate required flow rate.

ALTERNATE TESTING:

These check valves shall have their closure capabilities verified during quarterly pump testing and full exercised to the open position at refuelings in accordance with the requirements of Part 10-4.3.2. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 21

COMPONENTS: 11SJ43, 12SJ43, 13SJ43, 14SJ43
21SJ43, 22SJ43, 23SJ43, 24SJ43

FUNCTION:

These check valves are located in the low head safety injection/recirculation flow path from the RHR pumps to the RCS cold legs. The valves perform an active safety function in the open and closed positions. The valves must be capable of opening to provide a flow path from the RHR system to the RCS cold legs for low head safety injection or recirculation flow to the RCS for emergency core cooling. The valves must be capable of closure to prevent flow diversion during SI pump cold leg safety injection or flow initiation from the SI accumulators. Additionally, these valves function as pressure isolation valves as identified in Technical Specifications providing isolation between a high pressure system and a system of lower pressure design.

CATEGORY: AC

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

At power, these check valves remain in the closed position to provide RCS pressure boundary isolation. The valves are located in non-instrumented lines from the RHR system to the RCS cold legs with no other valves within the line which can be utilized for modulating flow. Exercising these valves to the full or partial open position during normal operation is not possible due to RCS pressure being higher than RHR pump shutoff head. Exercising these valves to the full open position during cold shutdown or refueling is burdensome due to the lack of instrumentation to measure flow and the inability to modulate flow. Exercising these valves to the closed position during normal operation is not practical due to the necessity of removing the individual cold leg from service in order to accomplish valve seat leakage test.

RJ - 21 (Cont.)

ALTERNATE TESTING:

These check valves shall be exercised to the closed position during the performance of seat leakage testing which is performed each startup after cold shutdowns when reactor pressure is greater 1000 psig. These check valves shall be partial stroke exercised to the open position during cold shutdown, and full exercised to the open position each refueling by disassembly. In accordance with the NRC guidance provided in Generic Letter 89-04, Attachment 1, Position 2, a sample disassembly and inspection program shall be implemented as outlined in Technical Position 5. An open partial stroke exercise test will be performed after reassembly to verify that valve disassembly and reassembly did not impair the valve's ability to perform its safety function. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ – 22

MOVED TO RELIEF REQUEST RR-04

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 23

COMPONENTS: 1SJ70, 2SJ70

FUNCTION:

This check valve is located in the respective RHR pump suction supply from RWST. The valve performs an active safety function in the open and closed position. The valve must be capable of closure during the recirculation phase to prevent backflow from the RHR heat exchanger discharge from being diverted to the RWST upon failure of upstream MOV to close. Valve closure ensures required flow is directed to the reactor vessel during cold leg recirculation and prevents containment sump fluid from being pumped to the RWST. This function also prevents the release of radioactivity to the atmosphere via the RWST vent. The valve must be capable of opening during the injection phase of emergency core cooling to provide suction supply to the RHR pumps from the RWST.

CATEGORY: C

CLASS: 2

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During power operation, the RHR pumps are in a standby condition with suction aligned to the RWST. The only verifiable full and partial flow path through this valve discharges into the RCS. Exercising this valve to the partial or full open position at power is impracticable because the RHR pumps do not produce sufficient head to overcome normal operating RCS pressure. Full or partial stroke exercising this check valve during cold shutdown is impractical because it would require pumping water from the RWST into the RCS. Pumping from the RWST would inject water with a high concentration of boric acid, which would overborate the RCS. This excess boron would have to be removed prior to returning the plant to power, which would result in the creation of a substantial quantity of radioactive waste water and could delay plant restart. Exercising this valve to the closed position during power operation is impracticable because it would require closing upstream isolation valve SJ69. Exercising SJ69 at power, with subsequent failure in the closed position, would result in rendering the RHR pumps incapable of performing their design safety function during the injection phase. Exercising this check valve to the closed position during cold shut down is not practical because of insufficient pressure differential across the valve disk to ensure full closure. During cold shutdown, RHR pump suction is supplied from the RCS hot leg and the isolation valve from the RWST is closed.

RJ–23 (Cont)

ALTERNATE TESTING:

This valve shall be full stroke exercised to the open and closed position during refuelings. This alternate testing was previously approved in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791).

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION RJ - 24

COMPONENTS: 11SJ139, 12SJ139, 13SJ139, 14SJ139
21SJ139, 22SJ139, 23SJ139, 24SJ139

FUNCTION:

These check valves are located in the hot leg injection headers from respective SI pumps to the RCS. The valves perform an active safety function in the open position. The valves must be capable of opening to provide a path for the SI pumps discharge flow during the recirculation phase via the RCS hot legs. These normally closed valves perform a passive safety in the closed position to prevent RCS intersystem leakage as specified in UFSAR Section 5.2.7.1.5.

CATEGORY: AC
CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During power operation the SI pumps are in a standby condition with the suction aligned to the respective RWST. The only flow path through these valves for full or part stroke exercising discharges into the RCS. Exercising these valves to the full or partial open position at power is impracticable because the SI pumps do not produce sufficient head to overcome normal operating RCS pressure. Exercising these valves to the full or partial open position at cold shutdown is not practicable due to the potential of creating a low temperature overpressure condition as a result of insufficient expansion volume to accommodate required flow rate. Full or partial exercising at cold shutdown would also result in significant RCS dilution and boric acid recovery operation, which could delay plant restart. Additionally, flow measurement to satisfy full exercising requires the installation of temporary test equipment inside primary containment, which could also delay plant restart. The only pratical means of verifying valve closure is by performing a seat leakage test, which is not pratical during plant operation or cold shutdown.

ALTERNATE TESTING:

These check valves shall be forward flow exercised at refuelings in accordance with the requirements of Part 10-4.3.2. This alternate testing was previously approved in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791). Valve closure shall verified at refuelings during seat leakage testing in accordance OM-10. 4.3.2.2.(e). This alternate testing is considered pre-approved in accordance with NUREG 1482, Section 4.1.4 guidelines.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 25

COMPONENTS: 11SJ144, 12SJ144, 13SJ144, 14SJ144
21SJ144, 22SJ144, 23SJ144, 24SJ144

FUNCTION:

These check valves are located in the cold leg safety injection headers from the respective safety injection pumps to the RCS. The valves perform an active safety function in the open and closed position. The valves must be capable of opening to provide a path for SI pump discharge flow for safety injection via the RCS cold legs. The valves must be capable of closure to prevent flow diversion during RHR low head safety injection/RHR recirculation via the RCS cold legs or flow initiation from the SI accumulators. Additionally, these valves function as pressure isolation valves as identified in Technical Specifications providing isolation between a high pressure system and a system of lower pressure design.

CATEGORY: AC
CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During power operation the SI pumps are in a standby condition with the suction aligned to the respective RWST. The only flow path through these valves for full or part stroke exercising discharges into the RCS. Exercising these valves to the full or partial open position at power is impracticable because the SI pumps do not produce sufficient head to overcome normal operating RCS pressure. Exercising these valves to the full or partial open position at cold shutdown is not practicable due to the potential of creating a low temperature overpressure condition as a result of insufficient expansion volume to accommodate required flow rate. Full or partial exercising at cold shutdown would also result in significant RCS dilution and boric acid recovery operation. Additionally, flow measurement to satisfy full exercising requires the installation of temporary test equipment inside primary containment, which could delay plant restart. Exercising these valves to the closed position during normal operation is not practical due to the necessity of removing the individual cold leg from service in order to accomplish valve seat leakage test.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position during the performance of pressure isolation valve seat leakage testing performed as required by Technical Specifications. The valves shall be full stroke exercised to the open position at refueling during full flow testing of the safety injection pumps. This alternate testing was previously approved in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791).

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 26

COMPONENTS: 1SJ150
2SJ150

FUNCTION:

This check valve is located in the Charging/Safety Injection pumps discharge to the RCS cold leg safety injection headers. The valve performs an active safety function in the open position. The valve must be capable of opening to provide a path for safety injection and recirculation flow via the RCS cold legs. This normally closed valve performs a passive safety in the closed position as an RCS pressure boundary isolation valve per Technical Specifications.

CATEGORY: AC

CLASS: 1

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

At power, the centrifugal Charging/Safety Injection pumps are in operation to provide normal charging with the VCT as the suction supply source. Exercising these valves to the partial or full open position during normal operation would require establishing flow through the safety injection flow path with the suction supply from the RWST. This is not possible during normal operation. Not only would normal charging flow be interrupted, but the injection of 2300 ppm boron solution into the RCS would result in negative reactivity rendering the reactor subcrictical and possibly requiring reactor shutdown. Exercising these valves to the full or partial open position at cold shutdown is not practicable due to the potential of creating a low temperature overpressure condition as a result of insufficient expansion volume to accommodate required flow rate. Full or partial exercising at cold shutdown would also result in significant RCS dilution and boric acid recovery operation which could delay plant restart.

ALTERNATE TESTING:

These check valves shall be full exercised to the open position at refuelings in accordance with the requirements of Part 10-4.3.2. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04.

VALVE REFUELING OUTAGE JUSTIFICATION RJ - 27

COMPONENTS: 11SJ156, 12SJ156, 13SJ156, 14SJ156
21SJ156, 22SJ156, 23SJ156, 24SJ156

FUNCTION:

These check valves are located in the hot leg injection headers from the SI pumps to the RCS. The valves perform an active safety function in the open position. The valves must be capable of opening to provide a path for SI pump discharge flow during the recirculation phase via the RCS hot legs. These normally closed valves perform a passive safety in the closed position as RCS pressure boundary isolation valves per Technical Specifications.

CATEGORY: AC
CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During power operation the SI pumps are in a standby condition with the suction aligned to the respective RWST. The only flow path through these valves for full or part stroke exercising discharges into the RCS. Exercising these valves to the full or partial open position at power is impracticable because the SI pumps do not produce sufficient head to overcome normal operating RCS pressure. Exercising these valves to the full or partial open position at cold shutdown is not practicable due to the potential of creating a low temperature overpressure condition as a result of insufficient expansion volume to accommodate required flow rate. Full or partial exercising at cold shutdown would also result in significant RCS dilution and boric acid recovery operation, which could delay plant restart. Additionally, flow measurement to satisfy full exercising requires the installation of temporary test equipment inside primary containment, which could also delay plant restart. The only practical means of verifying valve closure is by performing a seat leakage test, which is not particle during plant operation or cold shutdown.

ALTERNATE TESTING:

These check valves shall be forward flow exercised to the open position at refuelings in accordance with the requirements of Part 10-4.3.2. This alternate testing was previously identified in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791) and is pre-approved by Generic Letter 89-04. Valve closure shall verified at refuelings during seat leakage testing in accordance OM-10, 4.3.2.2.(e). This alternate testing is considered pre-approved in accordance with NUREG 1482, Section 4.1.4 guidelines.

Salem Units 1 and 2 Inservice Test Progam

(NON-CODE) VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 28

COMPONENTS: 1SV1198, 1SV1199
2SV1198, 2SV1199

FUNCTION:

These solenoid valves are installed in the accumulator actuating air system for the Pressurizer Power Operated Relief Valves 1/2PR1 and 1/2PR2 (PORVs). The valves automatically open in the event the PORV normal control air supply pressure decreases to 90 psig. The valves have an active safety function to open to allow accumulator air to operate the PORV's upon loss of normal air supply. The valves do not have a safety function in the closed direction.

CATEGORY: B

CLASS: N

TEST REQUIREMENTS:

(1) Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

(2) The stroke time for all power operated valves shall be measured in accordance with the requirements of Part 10-4.2.1.4.

(3) Stroke times for power operated valves shall be evaluated and corrective action taken in accordance with Part 10-4.2.1.9.

DEFERRED TEST JUSTIFICATION:

During normal operation these valves remain in the closed position. The valve's position is determined by the normal containment control air header pressure. There is no valve position indication or operating hand switches associated with the valve's instrument loop. Operation of the valve for stroke timing requires test equipment be installed inside containment and that personnel be stationed above the pressurizer to monitor valve operation. The environment above the pressurizer is extremely harsh during power operations, both in ambient temperature and in radiation dose rates. Stroke timing during cold shutdown is impractical due to the need to install test equipment. This test activity is burdensome and time consuming and could delay plant restart.

ALTERNATE TESTING:

Since these valves are non-class, they will be exercised to the open position and the stroke time determined using non-intrusive methods every refueling outage as an augmented test.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 29

COMPONENTS: 12SW5, 14SW5 22SW5, 24SW5
11SW47, 12SW47 21SW47, 22SW47

FUNCTION:

The SW5 valves are located in the service water pumps discharge header supply to the respective Nuclear Headers. The SW47 valves are located in the respective emergency diesel generator service water return header. These valves perform an active safety function in the open position. They must be capable of passing service water flow during accident conditions to various safety related components which are dependant upon service water as a heat sink. The SW5 valves also perform an active safety function in the closed position. They must be capable of closure to minimize a potential water hammer transient postulated to occur during a station blackout condition.

CATEGORY: C
CLASS: 3

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

These valves are simple checks without local or remote position indication. Full stroke open exercising the SW5 and SW47 valves at power or cold shutdown is impractical because it would involve increasing cooling flow to the served heat loads, which could cause significant thermal stress to some of these components. Full stroke open exercising these valves at power could also result in significant system transients and accelerated erosion to system piping and components. Reverse flow testing of the SW5 valves requires isolating flow to the nuclear header and the containment fan coil units respectively. Reverse flow testing these valves cannot be verified by leak testing, or observation of differential pressure, because isolation valves and test taps are not readily available.

ALTERNATE TESTING:

The SW5 and SW47 check valves shall be part stroke exercised quarterly and inspected during refueling to verify operability. In accordance with the NRC guidance provided in Generic Letter 89-04, Attachment 1, Position 2, a sample disassembly and inspection program shall be implemented for check valves 11/14/22/24SW5 and 11/12/21/22SW47 as outlined in Technical Position 5. Part-stroke exercising will be performed subsequent to reassembly. This alternate testing was approved for the SW5 valves in NRC Safety Evaluations dated October 9, 1992 (TAC Nos. M74790 and M74791) and April 15, 1994 (TAC Nos. M88144 and M88145).

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ – 30

COMPONENTS: 1SW26
2SW26

FUNCTION:

These motor operated valves are located in the respective Service Water (SW) supply header to the turbine generator area. The valves perform an active safety function in the closed position. The valves must be capable of closure by remote manual switch or on receipt of a safety injection signal. This function isolates non-essential, non-safety related SW loads and ensures adequate SW flow to safety related equipment.

CATEGORY: B

CLASS: 3

TEST REQUIREMENTS:

Closed Position - Category A and B valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.2.1.1.

DEFERRED TEST JUSTIFICATION:

During power operation these valves are maintained in the open position to supply cooling water flow to the various non-safety related heat loads in the turbine building. Exercising these valves to the closed position at power is not practical because of potential damage to components, or possible transients, which may cause a plant trip. The valve control circuitry is not provided with partial stroke capability. Valve exercising during cold shutdown is impractical due to the facts that the service water to the turbine building has to be isolated, potential removal of the Station Air Compressors, shutdown of all condensate pumps, breaking of condenser vacuum, removal of the TAC heat exchangers and the main turbine lube oil cooling system. The time required to setup and restore the systems for the test, during a cold shutdown that does not affect the primary side of the plant, is approximately six days.

ALTERNATE TESTING:

These motor operated valves shall be exercised to the closed position during refueling outages. This alternative frequency and method of testing is supported by NUREG - 1482, Paragraph 3.1.1 and is pre-approved by Generic Letter 89-04 Supplement 1. Testing shall be performed in accordance with the provisions of paragraph 4.2.1.2 (h) of OM-10.

VALVE REFUELING OUTAGE JUSTIFICATION - RJ – 31

COMPONENTS: 11SW51, 12SW51, 21SW51, 22SW51
11SW532, 12SW532, 21SW532, 22SW532

FUNCTION:

These nuclear header check valves are located on the inlet side of the containment fan coil units. These valves must be capable of closing during a loss of offsite power and station blackout to minimize potential water hammer.

CATEGORY: C

CLASS: 3

TEST REQUIREMENTS:

Closed position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

Exercising these check valves to the closed position during normal plant operation or cold shutdown would require isolating one nuclear service water header and two fan coil units. Additionally, NRC Generic Letter 89-13 testing is also being performed by disassembly and inspection on a refueling frequency which requires draining a portion of the service water system.. These valves cannot be readily verified to close by leak testing or observation of differential pressure because isolation valves are not available in close proximity to the valves under test.

ALTERNATE TESTING:

The SW51 and SW532 check valves shall be inspected during refueling to verify operability. In accordance with the NRC guidance provided in Generic Letter 89-04, Attachment 1, Position 2, a sample disassembly and inspection program shall be implemented for check valves 11/12/21/22SW51 and 11/12/21/22SW532 as outlined in Technical Position 5. Part-stroke exercising will be performed subsequent to reassembly.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 32

COMPONENTS: 11SW79, 21SW79, 12SW79, 22SW79

FUNCTION:

These normally open check valves are located in the service water header bypass line to the circulating water discharge and have an active safety function in the open direction. The valves have no safety function in the closed position. Discharge flow through these valves does not provide for cooling or heat removal for any safety related components or system. These valves are installed to prevent back flow of circulating water into the service water system.

CATEGORY: C
CLASS: 3

TEST REQUIREMENTS:

Open Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal plant operation these check valves remain in the open position with a flow of 14,200 GPM. During an accident, the worst case flow of 18,737 GPM through a single valve will occur if one service water header is out of service when the accident occurs. In order to achieve the design flow through each check valve the system components, such as the component cooling heat exchangers, room coolers, chillers, and containment fan cooler units would have to be placed inservice at their accident flow rates. This action has the potential to overcool the systems being supported, such as component cooling, chilled water and the containment atmosphere. These valves cannot be full stroked in the open position without header isolation and applicable system crosstie alignments which would subject the service water system to an extreme transient and increase system flowrates causing unnecessary erosion of the service water piping.

ALTERNATE TESTING:

These check valves shall be partial stroke exercised to the open position quarterly and disassembled and inspected at refueling outages. This alternate test frequency and method of testing is supported by NUREG - 1482, Appendix A, Position 2 and is pre-approved by NRC Generic Letter 89-04. It should be noted that alternate testing to partial stroke quarterly, inspect during cold shutdown, and disassemble and inspect during refueling was previously interim approved for one year or next refueling in NRC Safety Evaluation dated October 9, 1992 (TAC Nos. M74790 and M74791). The licensee was expected to actively pursue the use of alternate testing methods to verify valve full stroke open. If the licensees investigation showed that the testing methods were not feasible, disassembly and inspection according to position 2 of GL 89-04 is considered an acceptable alternative. Alternate testing was determined not feasible therefore GL 89-04, Position 2 continues as the alternate test method.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 33

COMPONENTS: 11SW536, 12SW536,
21SW536, 22SW536

FUNCTION:

These valves have an ACTIVE safety function in the OPEN position to inject stored service water into the respective Containment Fan Coil Unit (CFCU) header. This action prevents potential water column separation, which could occur during a Loss of Offsite Power (LOOP). These valves have an ACTIVE safety function in the CLOSED position to prevent reverse flow into the accumulator tanks during the time following service water pump restart and prior to fast-acting valve (SW534 and SW535) closure (approx. 9 second duration.) Reverse flow is tested quarterly.

CATEGORY: C
CLASS: 3

TEST REQUIREMENTS:

Open position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

Forward flow exercising these check valves to the open position during normal plant operation, cold shutdown or refueling outages would require simulating a Loss Of Offsite Power (LOOP) and initiating accumulator injection into the service water system. This action would require instrumenting the piping with ultrasonic flow measuring equipment and establishment of detailed procedures to capture rapid forward flow data during the dump test. GL 89-04, Position 2, recognizes that establishing design accident flow through similar valves could result in damage to major plant equipment. This testing is impractical to perform. The GL 89-13 Program requires disassembly and inspection of these valves on a refueling frequency. Limited part-stroke exercising through these valves using 3/4" vent connections is not practical and does not add value to assess operational readiness in the open direction.

ALTERNATE TESTING:

Each valve shall be disassembled and inspected during refueling outages as a positive means of determining that the valve's disk will full stroke open. Part-stroke exercising is not pratical and will not be performed subsequent to reassembly. In accordance with the NRC guidance provided in Generic Letter 89-04, Attachment 1, Position 2, a sample disassembly and inspection program shall be implemented for check valves 11/12/21/22SW536 as outlined in Technical Position 5.

Salem Units 1 and 2 Inservice Test Progam

VALVE REFUELING OUTAGE JUSTIFICATION - RJ - 34

COMPONENTS: 1FP148, 1DR30, 1WR81
2FP148, 2DR30, 2WR81

FUNCTION:

These check valves are located within the penetration boundary of various non-safety related process piping systems which penetrate primary containment, and perform an active safety function in the closed position. The valves are designated as inboard containment isolation valves and must be capable of closure to maintain containment integrity. These valves also have an active safety function in the open position. These valves open (lift of seat) to protect the penetration from overpressure due to thermal expansion between the isolation valves.

CATEGORY: AC

CLASS: 2

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

DEFERRED TEST JUSTIFICATION:

During normal operation these check valves remain in the closed position, however, if open, they must be capable of closure if containment isolation is required. Individually exercising these check valves to the closed position would require securing and venting the associated piping upstream of the check valve while simultaneously applying a temporary pressure source downstream of the valve disk to verify closure. Open position testing of FP148 and DR30 requires similar application of temporary pressure sources and draining portions of the system. This activity is impractical during power operation due to the necessity of entering primary containment for manual valve manipulation and to apply the temporary pressure source. This test activity is burdensome and time consuming during cold shutdown due to the use of temporary test equipment inside containment which could delay plant restart.

ALTERNATE TESTING:

These check valves shall be exercised to the closed position at refuelings during the performance of Type C seat leakage testing. Check valves FP148 and DR30 will be forward flow tested at refuelings while WR81 can be tested quarterly. This alternate frequency and method of testing is supported by NUREG - 1482, Paragraph 4.1.4. Testing shall be performed in accordance with the provisions of paragraph 4.3.2.2.(e) of OM-10.

ATTACHMENT 4

PUMP RELIEF REQUESTS

Salem Units 1 and 2 Inservice Test Program

PUMP RELIEF REQUEST INDEX

NO.	APPLICABLE COMPONENTS	
	UNIT 1	UNIT 2
P-01	All Pumps	All Pumps

Salem Units 1 and 2 Inservice Test Program

PUMP RELIEF REQUEST

P – 01

SYSTEM	All included in IST Program
PUMPS	All included in IST Program
CLASS	2 and 3
TEST REQUIREMENT	OMa –1988, Part 6, Paragraph 6.1 states, in part – If deviations fall within the required action range of Table 3, the pump shall be declared inoperable until the cause of the deviation has been determined and the condition corrected.

BASIS FOR RELIEF

The 1983 ASME Section XI Code, subsection IWP-3230(c) stated that,

> "Corrective action shall be either replacement or repair per IWP-3111, or shall be an analysis to demonstrate that the condition does not impair pump operability and that the pump will fulfill its function. A new set of reference values shall be established after such analysis."

The OMc –1994 Addenda (ISTB 6.2.2) and the OM 1995 Edition (ISTB 6.2.2) both state that,

> "If the measured test parameter values fall within the required action range of Table 5.2.1-1, Table 5.2.1-2, Table 5.2.2-1, or Table 5.2.3-1, as applicable, the pump shall be declared inoperable until either the cause of the deviation has been determined and the condition is corrected, or an analysis of the pump is performed and new reference values are established in accordance with ISTB 4.6."

The Code applicable for the second interval IST Program and the latest issued Code both provide for analysis of pump test data in lieu of repair or replacement of the pump if the test parameters fall within the required action range. The OMa Code-1988 Edition did not include such provisions. Communications with members of the OM Committee indicate that this was an oversight and that it was never intended to delete the ability to analyze the test data and determine if the pump is still capable of performing its intended safety function.

ALTERNATE TESTING

Should pump test parameters fall within the required action range of Table 3 (OMa Code 1988 Edition), then the OM Code 1995 Edition, subsection ISTB 6.2.2 will be utilized. Since subsection ISTB 4.6 in the 1995 Code Edition references ISTB 6.2.2, subsection ISTB 4.6 from the OM Code 1995 Edition will also be applied.

ATTACHMENT 5

VALVE RELIEF REQUESTS

Salem Units 1 and 2 Inservice Test Program

VALVE RELIEF REQUEST INDEX

NO.	APPLICABLE COMPONENTS UNIT 1	UNIT 2
V-01	11/12/13/14SJ55	21/22/23/24SJ55
V-02	11/12/13/14SJ56	21/22/23/24SJ56
V-03	11/12DA13A/B/C, 11/12DA14A/B/C	21/22DA13A/B/C, 21/22DA14A/B/C
V-04	11/12SJ44	21/22SJ44

VALVE RELIEF REQUEST - V - 01

COMPONENTS: 11SJ55, 12SJ55, 13SJ55, 14SJ55
21SJ55, 22SJ55, 23SJ55, 24SJ55

FUNCTION:

These check valves are located in the discharge lines from the respective safety injection accumulators. The valves perform an active safety function in the open and closed positions. The valves must be capable of opening during a large break LOCA to provide a flow path for SI accumulator discharge to the RCS cold legs when reactor pressure drops below accumulator pressure. The valve must be capable of closure to prevent divergence of safety injection and recirculation flow subsequent to the accumulators dumping their contents. This valve also functions as an RCS pressure isolation valve. This function prevents exposing the SI accumulators to RCS pressure which would compromise accumulator pressure boundary integrity.

CATEGORY: AC

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

BASIS FOR RELIEF:

During power operation, these valves are maintained in the closed position by RCS pressure on the downstream side of the valve disk. Quarterly exercising these valves to the full or partially open position during power operation is impracticable because the only flow path is into the RCS. The operating accumulator pressure cannot overcome normal operating RCS pressure to establish flow. Full stroke exercising these valves at cold shutdown is impracticable because of the potential for low temperature overpressurization due to insufficient expansion volume in the RCS to accept required flow. This testing could also result in the intrusion of nitrogen into the core which could interrupt the normal circulation of cooling water flow. Partial stroke exercising these valves going into cold shutdown is burdensome without a commensurate increase in the level of quality and safety. The associated motor-operated isolation valve (one per accumulator) cannot be partially stroked, but must complete a full stroke before changing direction. This could cause a complete discharge of the water volume in the accumulator and possibly inject nitrogen into the reactor coolant system, causing gas binding of the residual heat removal pumps and a subsequent loss of shutdown cooling. These valves are also verified to close by leak testing per plant technical specifications for Pressure Isolation Valves (PIV's). Reverse exercising these check valves at any time other than refueling is burdensome without a commensurate increase in the level of quality and safety. The valves are normally in the closed position and accumulator pressure is continuously monitored to ensure that an adequate nitrogen blanket is maintained and to verify the lack of RCS inleakage.

RR - 01 (Cont)
ALTERNATE TESTING:

These check valves shall be full stroke exercised to the open position during refuelings utilizing a reduced pressure, partial accident flow test method. This controlled method is performed with the reactor vessel head removed. The test method establishes accumulator pressure between 67 and 70 psig, accumulator level between 96 and 100% and refueling cavity level between 125.5 and 126.5 feet. After establishment of the fixed parameters the test then measures the time interval required for the pressure in the associated safety injection accumulator to drop from an initial pressure to 35 psig. Engineering calculation S-2-SJ-MDC-1394 - "Acumulator Pressure Decay during Discharge Test" establishes the test conditions and acceptance criterion and concludes that this methodology is adequate in determining that the associated check valve disk moves to the full open position. Information from other nuclear stations was reviewed regarding partial flow, full stroke exercising using a calculational method. The testing performed at Salem provides a valid methodology for verifying the open function even though the test method differs from the various methods reviewed.

In attempting to utilize the guidance of NUREG 1482, Section 4.1.2 - "Exercising Check Valves with Flow and Nonintrusive Techniques", nonintrusive equipment was used during informational testing. These valves are Darling Valve & Manufacturing Co. "Clear Waterway" swing checks that are fabricated without a backstop. The valve design permits the disk to move sufficiently out of the flow path without contacting the valve body. Nonintrusive testing using acoustic and magnetic technology provides sufficient data for monitoring degradation on a periodic basis however, full open acoustic indication is not detected or expected to show on the test trace. Nonintrusive testing does not verify full stroke exercising however occasional use of this equipment during the pressure decay test provides useful condition monitoring information.

This method of forward flow check valve testing complies with the guidance provided in Generic Letter 89-04, Attachment 1, Position 1.

Regarding reverse flow exercise testing, these valves shall be verified in the closed position during the process of performing seat leakage testing at the frequency specified in Unit 1 TS 4.4.6.3 and Unit 2 TS 4.4.7.2.2. (The Unit 1 SJ55 check valves are not listed in the Unit 1 TS. A license amendment will be requested to add these valves prior to Unit 1 startup).

The open stroke frequency change was previously approved in NRC Safety Evaluation April 15, 1994 (TAC Nos. M88144 and M88145).

The closed stroke frequency and forward flow exercising methodology was previously approved in NRC Safety Evaluation dated March 12, 1999 (TAC No. M98259).

VALVE RELIEF REQUEST – V - 02

COMPONENTS: 11SJ56, 12SJ56, 13SJ56, 14SJ56
21SJ56, 22SJ56, 23SJ56, 24SJ56

FUNCTION:

These check valves are located in the discharge lines from the respective safety injection accumulators downstream of the branch connection from RHR. The valves perform an active safety function in the open position. The valves must be capable of opening during a large break LOCA to provide a flow path for SI accumulator discharge to the RCS cold legs when reactor pressure drops below accumulator pressure. The valve must also be capable of opening to provide a path for low head safety injection and cold leg recirculation flow. This valve also functions as an RCS pressure isolation valve. This function prevents exposing the SI accumulators and RHR system piping to RCS pressure.

CATEGORY: AC

CLASS: 1

TEST REQUIREMENTS:

Open & Closed Position - Check valves shall be exercised at least once every 3 months, in accordance with the requirements of Part 10-4.3.2.1.

BASIS FOR RELIEF:

During power operation, these valves are maintained in the closed position by RCS pressure on the downstream side of the valve disk. Quarterly exercising these valves to the full or partially open position during power operation is impracticable because the only flow path is into the RCS. The operating accumulator pressure cannot overcome normal operating RCS pressure to establish flow. Full stroke exercising these valves at cold shutdown is impracticable because of the potential for low temperature overpressurization due to insufficient expansion volume in the RCS to accept required flow. This testing could also result in the intrusion of nitrogen into the core which could interrupt the normal circulation of cooling water flow. The associated motor-operated isolation valve (one per accumulator) cannot be partially stroked, but must complete a full stroke before changing direction. This could cause a complete discharge of the water volume in the accumulator and possibly inject nitrogen into the reactor coolant system, causing gas binding of the residual heat removal pumps and a subsequent loss of shutdown cooling. These valves are also verified to close by leak testing per plant technical specifications for Pressure Isolation Valves (PIV's). Reverse exercising these check valves at any time other than refueling is burdensome without a commensurate increase in the level of quality and safety.

RR - 02 (Cont)
ALTERNATE TESTING:

These check valves shall be full stroke exercised to the open position during refuelings utilizing a reduced pressure, partial accident flow test method. This controlled method is performed with the reactor vessel head removed. The test method establishes accumulator pressure between 67 and 70 psig, accumulator level between 96 and 100% and refueling cavity level between 125.5 and 126.5 feet. After establishment of the fixed parameters the test then measures the time interval required for the pressure in the associated safety injection accumulator to drop from an initial pressure to 35 psig. Engineering calculation S-2-SJ-MDC-1394 - "Acumulator Pressure Decay during Discharge Test" establishes the test conditions and acceptance criterion and concludes that this methodology is adequate in determining that the associated check valve disk moves to the full open position. Information from other nuclear stations was reviewed regarding partial flow, full stroke exercising using a calculational method. The testing performed at Salem provides a valid methodology for verifying the open function even though the test method differs from the various methods reviewed.

In attempting to utilize the guidance of NUREG 1482, Section 4.1.2 - "Exercising Check Valves with Flow and Nonintrusive Techniques", nonintrusive equipment was used during informational testing. These valves are Darling Valve & Manufacturing Co. "Clear Waterway" swing checks that are fabricated without a backstop. The valve design permits the disk to move sufficiently out of the flow path without contacting the valve body. Nonintrusive testing using acoustic and magnetic technology provides sufficient data for monitoring degradation on a periodic basis however, full open acoustic indication is not detected or expected to show on the test trace. Nonintrusive testing does not verify full stroke exercising however occasional use of this equipment during the pressure decay test provides useful condition monitoring information.

The valves shall be partial stroke exercised at cold shutdown during normal RHR shutdown cooling operations.

This method of forward flow check valve testing complies with the guidance provided in Generic Letter 89-04, Attachment 1, Position 1.

Regarding reverse flow exercise testing, these valves shall be verified in the closed position during the process of performing seat leakage testing at the frequency specified in Unit 1 TS 4.4.6.3 and Unit 2 TS 4.4.7.2.2.

The open stroke frequency change was previously approved in NRC Safety Evaluation April 15, 1994 (TAC Nos. M88144 and M88145).

The closed stroke frequency and forward flow exercising methodology was previously approved in NRC Safety Evaluation dated March 12, 1999 (TAC No. M98260).

Salem Units 1 and 2 Inservice Test Progam

(NON-CODE) VALVE RELIEF REQUEST – V - 03

COMPONENTS:

11DA13A, 13B, & 13C	21DA13A, 13B, & 13C
12DA13A, 13B, & 13C	22DA13A, 13B, & 13C
11DA14A, 14B, & 14C	21DA14A, 14B, & 14C
12DA14A, 14B, & 14C	22DA14A, 14B, & 14C

FUNCTION:

These solenoid operated globe valves are located in the air supply lines to the diesel generator starting air motors from the starting air receivers and are skid-mounted. These valves perform an active safety function in the open position. The valves must be capable of opening when the associated engine receives a start signal to provide a flow path for starting air to the engine.

CATEGORY: B
CLASS: NONE

TEST REQUIREMENTS:

(1) The stroke time for all power operated valves shall be measured in accordance with the requirements of Part 10-4.2.1.4.

(2) Stroke times for power operated valves shall be evaluated and corrective action taken in accordance with Part 10-4.2.1.9.

BASIS FOR RELIEF:

These valves are maintained in the closed position and are not provided with position indication to facilitate individual valve exercise and stroke time testing. There are four (4) solenoid valves per generator, which are exercised together during monthly diesel generator start testing. On a quarterly basis the diesel generator is started from one starting air bank to demonstrate design capability of the diesel to start using a pair of starter motors. Stroke time and exercise testing of these solenoid valves is considered satisfactory if the diesel achieves Technical Specification RPM in ≤ 13 seconds during monthly diesel testing when the diesel is started on a single air bank. Individual valve stroke timing is not possible during the diesel start process since this skid mounted system was not designed to include features for inservice testing. NUREG 1482, Section 3.2 identifies that for skid-mounted components testing of the major component is an acceptable means for verifying component subassembly operational readiness.

ALTERNATE TESTING:

Quarterly open stroke time and exercise testing shall be considered satisfactory if the diesel achieves Technical Specification RPM in ≤ 13 seconds when started from one air bank during monthly diesel testing per Technical Specification 4.8.1.1.2.

VALVE RELIEF REQUEST – V – 04

COMPONENTS: 11SJ44, 12SJ44
21SJ44, 22SJ44

FUNCTION:

These motor operated valves are located in the supply lines from the containment sump to the respective RHR pump suction. The valves perform an active safety function in the open position. The valves must be capable of opening to align the containment sump to the ECCS subsystems during the recirculation phase of emergency core cooling. The valves perform a passive safety function in the closed position to properly align ECCS subsystems to the RWST during the injection phase of emergency core cooling, and to prevent the RWST inventory from backflowing to the containment sump.

CATEGORY: B

CLASS: 2

TEST REQUIREMENTS:

Position Indication - Valves with remote position indicators shall be observed at least once every 2 years, in accordance with the requirements of Part 10-4.1.

BASIS FOR RELIEF:

These valves are located in separate compartments in the containment. The compartments are accessible from outside the containment through four foot diameter manways which must be unbolted and manually removed for entry. These manways are sealed by gaskets on the flange surface to which they are bolted. The proper sealing of this surface is necessary to ensure containment integrity. If the valves are verified for proper remote position indication (RPI) every two years, hatch removal would be required for RPI verification only. In order to minimize the potential for damage to flange surfaces and gaskets, the valves should be verified for RPI accuracy when other scheduled maintenance/inspection activities are performed. It is impractical to open these compartments to verify remote position indication by direct observation every two years.

ALTERNATE TESTING:

Remote position indication will be verified once every other refueling concurrent with Environmental Qualification inspections, or at any other time the manways are removed (ref. Maint. Proc. SC.MD-EU.ZZ-0006(Q)), but in no case more often then once every two years. This alternate testing was previously approved in NRC Safety Evaluations dated October 9, 1992 (TAC Nos. M74790 and M74791) and April 15, 1994 (TAC Nos. M88144 and M88145).

Calculation S-2-SJ-MDC-1394
Revision 3

FORM 1

CALC NO.: S-2-SJ-MDC-1394 REVISION: 3	CALCULATION COVER SHEET	Page 1 of 40

CALC. TITLE:	Accumulator Pressure Decay During Discharge Test						
# SHTS (CALC):	40	# ATT / # SHTS:	1/4	# IDV/50.59 SHTS:	2/9	# TOTAL SHTS:	55

CHECK ONE:

☒ FINAL ☐ INTERIM (Proposed Plant Change) ☐ FINAL (Future Confirmation Req'd) ☐ VOID

SALEM OR HOPE CREEK: ☒ Q – LIST ☒ IMPORTANT TO SAFETY ☐ NON-SAFETY RELATED
HOPE CREEK ONLY: ☐Q ☐Qs ☐Qsh ☐F ☐R

☒ STATION PROCEDURES IMPACTED, IF SO CONTACT RELIABILITY ENGINEER
☐ CDs/ADs INCORPORATED (IF ANY): _____

DESCRIPTION OF CALCULATION REVISION (IF APPL.):
Pages were renumbered. Page numbers 2A and 17A were eliminated.

PURPOSE:
Determine the acceptance criterion of the pressure decay time for the accumulator discharge test. The acceptance criterion will be incorporated in procedure S2.OP-ST.SJ-0006.

CONCLUSIONS:
The pressure decay time acceptance criterion is 28.1 seconds.

	Printed Name / Signature	Date
ORIGINATOR/COMPANY NAME:	Vijay Chandra/PSEG Nuclear Vijay Chandra.	May 13, 2004
REVIEWER/COMPANY NAME:	N/A	
VERIFIER/COMPANY NAME:	James Murphy/PSEG Nuclear	May 24, 2004
PSEG SUPERVISOR APPROVAL:	Paul Lindsay	5/24/04

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2. DESCRIPTION OF CONFIGURATION 5
3. ANALYSIS 8
   - 3.1 ACCUMULATOR 9
   - 3.2 PRESSURIZER 11
   - 3.3 CHECK VALVE SJ 55 13
   - 3.4 GATE VALVE SJ 54 18
   - 3.5 PIPING BETWEEN ACCUMULATOR AND COLD LEG 20
   - 3.6 PIPING BETWEEN HOT LEG AND PRESSURIZER 22
   - 3.7.1 EQUATIONS OF MOTION (REACTOR HEAD ON) . 23
   - 3.7.2 EQUATIONS OF MOTION (REACTOR HEAD OFF) 28
4. RESULTS 32
5. CONCLUSION 39
6. REFERENCES. 40

ATTACHMENT 1 (VALVE STROKE TIMES)

FORM 2

	CALCULATION CONTINUATION SHEET	SHEET: 3

CALC. NO.: S-2-SJ-MDC-1394			REFERENCE:				
ORIGINATOR,DATE	REV:	V. Chandra Oct. 20, 2003	2	V. CHANDRA MAY 13, 2004	3		
REVIEWER/VERIFIER,DATE		James Murphy					

Revision History

Revision No.	Date	Description
0	Oct. 24, 1994	Calculation was issued to correct the existing acceptance criterion of 37 sec.
1	Feb. 5, 1996	Minor typographical errors were corrected. There was no change in the results.
2	Oct. 21, 2003	DCP's 80017352, 80017353, 80017354, 80017354 changed the stroke times of 21SJ54, 22SJ54, 23SJ54, and 24 SJ54 valves. This change would result in a revised acceptance criterion. A minor error in the accumulator tap elevation was corrected.
3	May 13, 2004	Pages were renumbered. Page numbers 2A and 17A were causing confusion and were eliminated. The 50.59 safety evaluation was not revised because there is no change to the contents.

Page Revision Index

Page	Revision	Page	Revision	Page	Revision	Page	Revision
1	3	11	0	21	0	31	2
2	3	12	0	22	0	32	2
3	3	13	0	23	1	33	2
4	2	14	0	24	0	34	2
5	0	15	0	25	0	35	2
6	0	16	0	26	2	36	2
7	0	17	0	27	2	37	2
8	0	18	2	28	1	38	2
9	2	19	2	29	0	39	2
10	2	20	0	30	2	40	2
						Att. 1	2

FORM 2

	CALCULATION CONTINUATION SHEET	SHEET: 4

CALC. NO.: S-2-SJ-MDC-1394			REFERENCE:				
ORIGINATOR,DATE	REV:	V. Chandra Oct. 20, 2003	2				
REVIEWER/VERIFIER,DATE		James Murphy 10/22/2003					

1. INTRODUCTION

Accumulator dump test is done in Mode 6 in accordance with procedure S2.OP-ST.SJ-0006(Q), Rev. 8. According to this procedure, the reactor head is off during the test condition. In revision 1 of this calculation (S-2-SJ-MDC-1394), an acceptance criterion of the pressure decay time was calculated based on the 12.5 second opening stroke time of SJ54 valves. DCP's 80017352, 80017353, 80017354, 80017355, revised the stroke time of SJ54 valves. However, the acceptance criterion calculated in revision 1 was not revised. As a result, when discharge test was performed on 21 accumulator by opening 21SJ54 valve, the pressure decay time exceeded the acceptance criterion and 21SJ55 and 21SJ56 valves were declared inoperable (Notification 20162455).

In this revision of the calculation, a revised acceptance criterion of the accumulator pressure decay time has been calculated. The SJ54 valve opening stroke times were measured and are given in Attachment 1and were used.

Although the test is done with the reactor head off, the acceptance criterion was also calculated for the situation when the reactor head is on and the venting occurs through the pressurizer.

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUM. PRESSURE DECAY DURING DISCHARGE TEST	ID NO. S-2-SJ-MDC-1394	SHEET 5 OF
		REFERENCE	
	ORIGINATOR	V. CHANDRA 0	
	DATE	15 SEP 1994	
	PEER REVIEW	[illegible]	
	DATE	10/28/94	

2. DESCRIPTION OF CONFIGURATION:

FIGURE 1A. SHOWS THE RELEVENT COMPONENTS THAT ARE INVOLVED IN THE TEST (REACTOR HEAD ON). THE VALVE SJ54 IS OPENED WHILE THE INITIAL GAS PRESSURE IN THE ACCUMULATOR IS BETWEEN 67 AND 70 psig. AS THE VALVE OPENS, THE WATER STARTS TO COME OUT OF THE ACCUMULATOR AND PRESSURIZER LEVEL RISES. THE PORV'S ARE OPEN. THE AIR FROM THE PRESSURIZER IS VENTED TO THE CONTAINMENT. THROUGH OPENINGS CREATED BY REMOVING THE SAFETY VALVES.

FIGURE 1.B. SHOWS THE RELEVANT COMPONENTS THAT ARE INVOLVED WHEN THE TEST IS DONE WITH THE REACTOR HEAD OFF. IN THIS SITUATION, THE WATER FROM THE ACCUMULATOR IS DISCHARGED TO THE REACTOR CAVITY.

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST	ID NO. S-2-SJ-MDC-1394	SHEET 6 OF
		REFERENCE	
	ORIGINATOR V.CHANDRA 0		
	DATE 15SEP1994		
	PEER REVIEW		
	DATE 10/22/94		

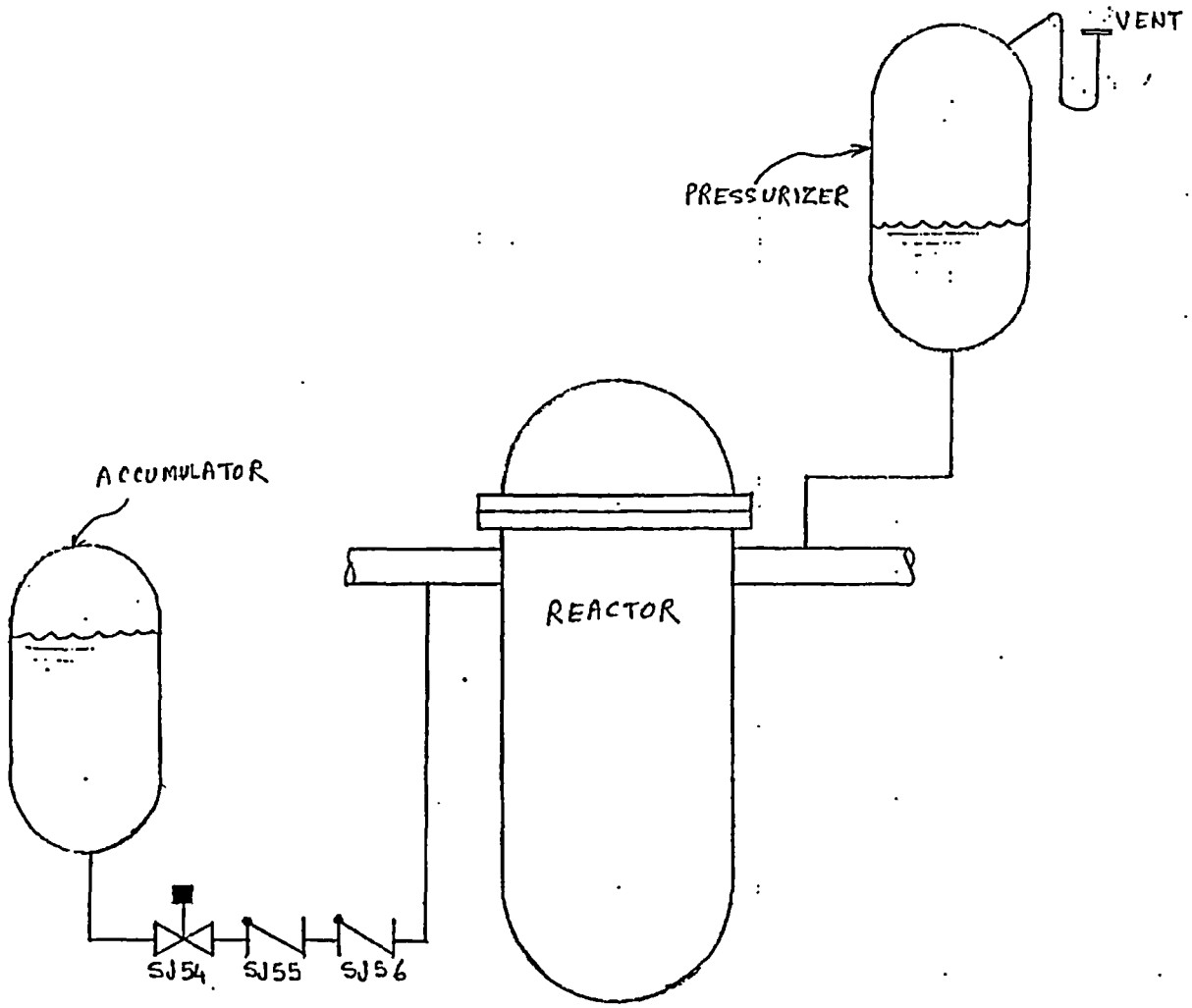


FIGURE 1A. SCHEMATIC ARRANGEMENT OF ACCUMULATOR, REACTOR, AND VENTED PRESSURIZER.
(TEST CONFIGURATION WITH REACTOR HEAD ON)

95-0327 25M 3-92

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST.	ID NO. S-2-SJ-MDC-1394	SHEET 7 OF
		REFERENCE	
	ORIGINATOR	V. CHANDRA 0	
	DATE	21 OCT 1994	
	PEER REVIEW	Cewg	
	DATE	10/22/94	

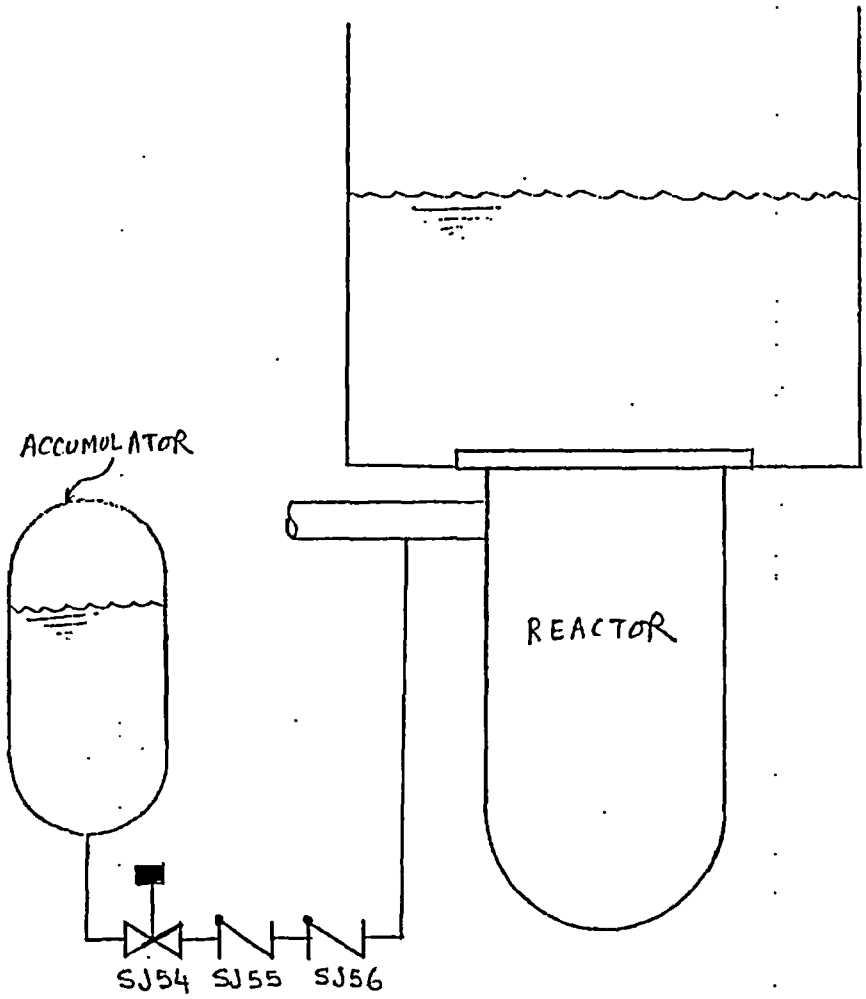


FIGURE 1B. SCHEMATIC ARRANGEMENT OF ACCUMULATOR, DISCHARGE VALVES AND REACTOR CAVITY (TEST CONFIGURATION WITH REACTOR HEAD OFF).

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST.	ID NO. S-2-SJ-MDC-1394	SHEET 8 OF
	ORIGINATOR V. CHANDRA 0	REFERENCE	
	DATE 15 SEP 1994		
	PEER REVIEW dmg		
	DATE 10/22/94		

3. ANALYSIS

IN THIS SECTION A MATHEMATICAL MODEL OF ACCUMULATOR DUMP PROCESS HAS BEEN DEVELOPED. SINCE PRESSURE DIFFERENCE ACROSS THE REACTOR IS RELATIVELY INSIGNIFICANT IT WILL NOT BE CONSIDERED.

THE INERTIAL EFFECTS OF ACCUMULATOR DISCHARGE PIPING AND PRESSURIZER SURGE PIPING HAVE BEEN CONSIDERED.

3.1 ACCUMULATOR

ACCUMULATOR LEVEL ELEVATION IS GIVEN IN FIGURE 2. TABLE 1 BELOW LISTS THE WATER VOLUME IN THE ACCUMULATOR AS A FUNCTION OF WATER LEVEL ELEVATION. [Ref. 5]

TABLE 1. ACCUMULATOR LEVEL, WATER VOLUME AND LEVEL ELEVATION.

LEVEL %	WATER VOLUME (ft^3)	ELEVATION OF WATER SURFACE (ft)	
100	939.7	91.46	
0	700.4	88.96	
NOT DEFINED	409.4	85.92	

LET

Z_A = ELEVATION OF WATER LEVEL IN THE ACCUMULATOR

V_{WA} = VOLUME OF WATER IN THE ACCUMULATOR 2

or $V_{WA} = 95.72\, Z_A - 7814.85$; $85.92 \le Z_A \le 91.46$ ft.

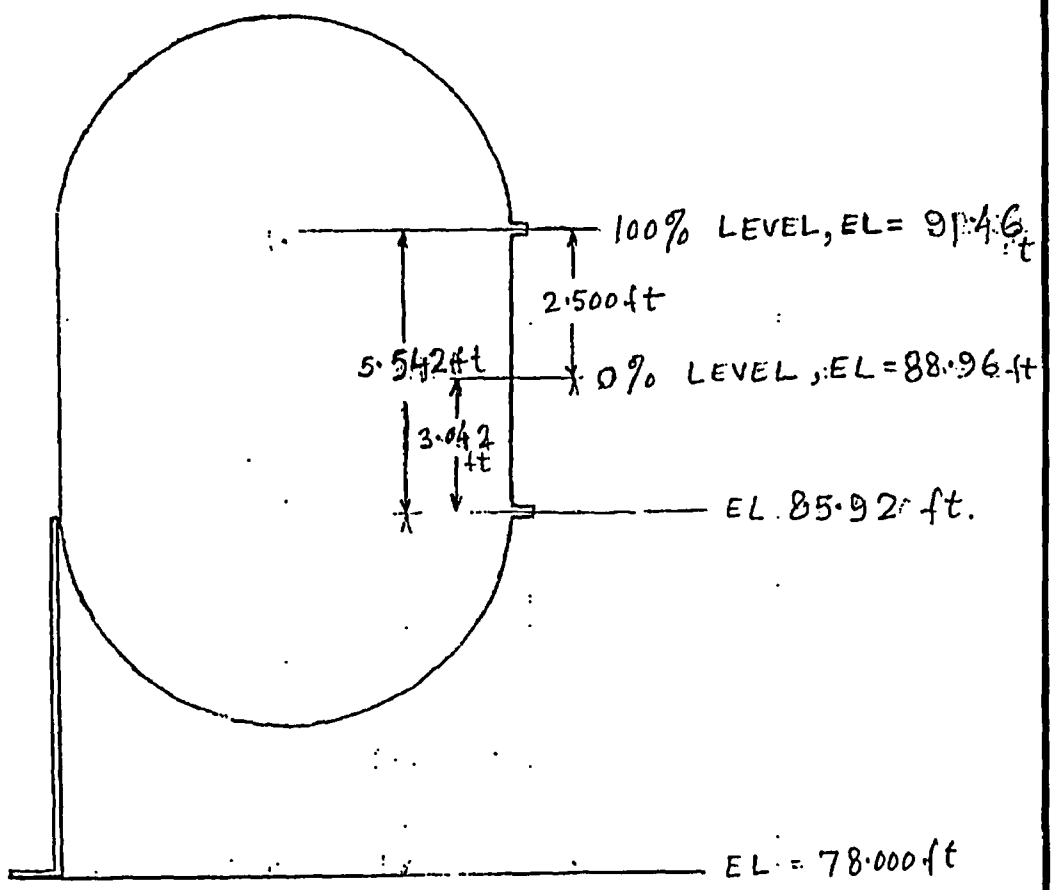
INITIAL WATER VOLUME CORRESPONDS TO 96% LEVEL
$= 930.1\ ft^3$

FROM UFSAR TABLE 6.3-2 Rev. 13

INITIAL NITROGEN VOLUME $= 1350 - 930.1\ ft^3$ 1
$= 419.9\ ft^3$

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST		ID NO. S-2-SJ-MDC-1394		SHEET 10 OF
			REFERENCE		
	ORIGINATOR	V.CHANDRA 0	V.CHANDRA 2		
	DATE	15SEP1994	21OCT2003		
	PEER REVIEW	ang	JM		
	DATE	10/22/94	10/22/2003		

FIGURE 2. ACCUMULATOR LEVEL AND ELEVATION RELATIONSHIP [Ref. 2, 3, 4]



3.2. PRESSURIZER

FIGURE 3 SHOWS THE PRESSURIZER LEVEL IN % VS. ELEVATION OF WATER LEVEL. TABLE 2 BELOW SHOWS THE RELATIONSHIP BETWEEN: WATER LEVEL ELEVATION, % LEVEL AND THE WATER VOLUME IN THE PRESSURIZER (Ref. 6).

TABLE 2. PRESSURIZER LEVEL, WATER VOLUME, AND LEVEL ELEVATION.

LEVEL %	WATER VOLUME (ft^3)	ELEVATION OF WATER SURFACE (ft)	
100%	1764.7	152.75	
40.1%	758.0	126.50	
22%	454.5	118.58	

LET

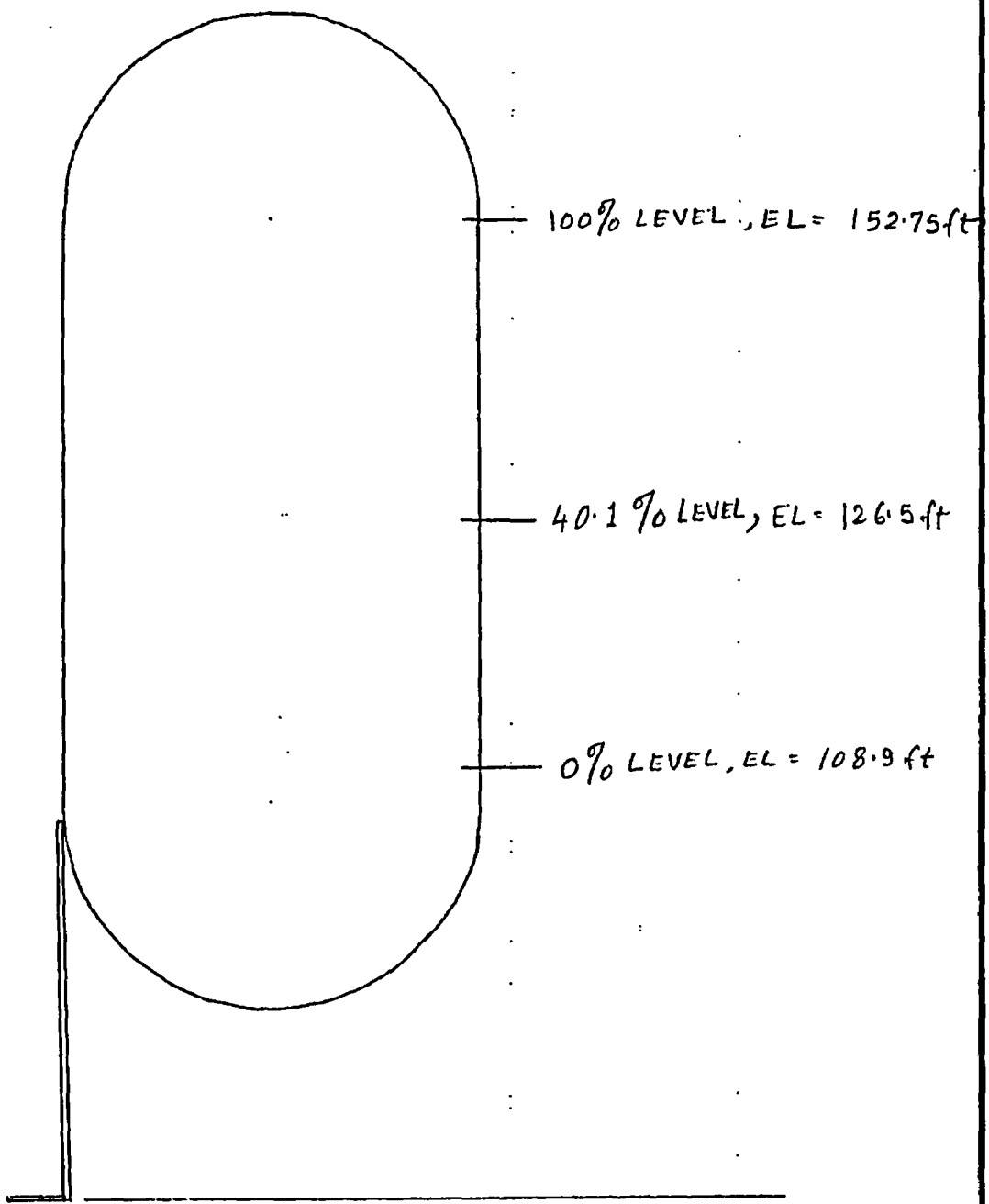
Z_p = PRESSURIZER LEVEL ELEVATION (ft)

V_{wp} = WATER VOLUME IN PRESSURIZER (ft^3)

$$V_{wp} = 38.34\, Z_p - 4092.3 \; ; \; 118.58 \le Z_p \le 152.75 \text{ ft.}$$

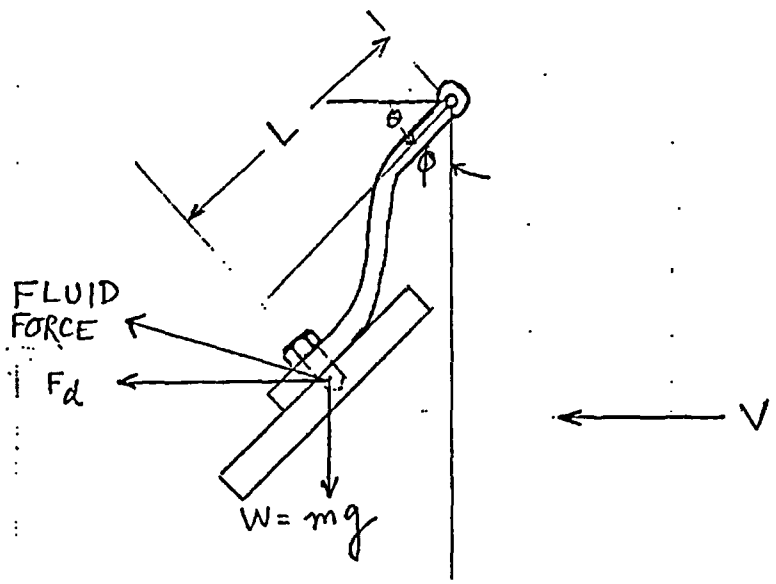
PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST.	ID NO. S-2-SJ-MDC-1394	SHEET 12 OF
		REFERENCE	
	ORIGINATOR V.CHANDRA 0		
	DATE 15SEP1994		
	PEER REVIEW ang		
	DATE 10/22/94		

FIGURE 3. PRESSURIZER LEVEL AND ELEVATION RELATIONSHIP. [Ref. 6]



3.3 CHECK VALVE SJ55

IN THIS SECTION, THE RELATIONSHIP BETWEEN THE CHECK VALVE DISC ANGLE, FLOWRATE, AND PRESSURE DIFFERENCE HAS BEEN CALCULATED.



FROM EQ. 3-1 ON PAGE 3-7 OF EPRI REPORT NP-5479 [Ref. 1], THE RELATIONSHIP BETWEEN, DISK WEIGHT, FLOW VELOCITY, AND DISK ANGLE IS

$$V = \sqrt{\frac{g C W_{eff} \cos\theta}{K \rho A_D \sin^2\theta}}$$

W_{eff} = EFFECTIVE WEIGHT OF DISK (lbf)
ρ = FLUID DENSITY IN $\frac{lbm}{ft^3}$
C = BUOYANCY FACTOR

OR

$$V = \sqrt{\frac{C m g \sin\phi}{K \rho A_D \cos^2\phi}}$$

m = DISK MASS IN SLUGS
ρ = FLUID DENSITY IN $\frac{SLUG}{ft^3}$
A_D = DISK AREA

K = 2 FROM TEST DATA

USING THE NOTATION OF FIGURE C-1 ON PAGE C-7 OF REF [1]

THE COMPONENT OF FLUID FORCE IN THE DIRECTION OF FLOW $= F_d \approx \dot{m}\,(V - V\cos\theta)\cdot\beta$

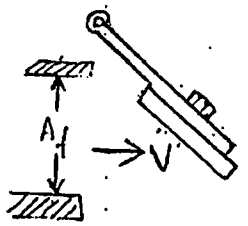
$$\approx \dot{m}\,V\,(1-\sin\phi)\cdot\beta$$

$$= \rho A_F V^2 (1-\sin\phi)\,\beta$$

A_F = VALVE FLOW AREA

ALSO

$$F_d \approx \Delta p\, A_{pipe}$$



$$\Delta p\, A_{pipe} = \rho A_F V^2 (1-\sin\phi)\,\beta$$

$$\Delta p = \frac{\rho A_F}{A_{PIPE}}\cdot(1-\sin\phi)\cdot V^2\cdot\beta \qquad (4)$$

β = A CORRECTION FACTOR

$$= \tfrac{1}{2} k \rho V^2$$

$$k = 2\,\frac{A_F}{A_{PIPE}}\cdot(1-\sin\phi)\,\beta$$

FROM PREVIOUS PAGE

$$V^2 = \frac{C m g \sin\phi}{2\rho A_D \cos^2\phi} \quad ; \quad \text{LET } \alpha = \frac{C m g}{2\rho A_D}$$

or $\cos^2\phi = \dfrac{\alpha}{V^2}\sin\phi$

or $1 - \sin^2\phi = \frac{\alpha}{V^2}\sin\phi$

or $\sin^2\phi + \frac{\alpha}{V^2}\sin\phi - 1 = 0$

or $\sin\phi = \dfrac{-\frac{\alpha}{V^2} \pm \sqrt{\frac{\alpha^2}{V^4} + 4}}{2}$

CHOOSE THE POSITIVE SIGN

$$\sin\phi = \frac{1}{2}\left(\sqrt{\frac{\alpha^2}{V^4} + 4} - \frac{\alpha}{V^2}\right) \qquad (5)$$

EQUATIONS (4) AND (5) PROVIDE THE FLOW RATE Vs. PRESSURE DIFFERENCE RELATIONSHIP FOR THE CHECK VALVE.

$C\,m\,g = 0.9 * 65$ lbf (PHONE CONVERSATION WITH JOHN WIEDEMAN)

$\rho = 1.94 \ \frac{SLUG}{ft^3}$

$A_d \approx 0.394 \ ft^2$

$\alpha = \dfrac{0.9 * 65}{2 * 1.94 * 0.394} \ \dfrac{lbf}{SLUG} \dfrac{ft^3}{ft^2}$

$= 38.3 \ \frac{ft^2}{s^2}$

FROM WESTINGHOUSE LETTER PSE-90-530 [Eq.8]
THE FULL LIFT OCCURS AT 20ft/SEC VELOCITY IN THE PIPE.

AT 20ft/SEC.

$$\frac{\alpha}{V^2} = \frac{38.3}{20^2} = 0.09575$$

$$\sin\phi_{MAX} = \frac{1}{2}\left(\sqrt{\left(\frac{\alpha}{V^2}\right)^2 + 4} - \frac{\alpha}{V^2}\right)$$

$$= \frac{1}{2}\left(\sqrt{(0.09575)^2 + 4} - 0.09575\right)$$

$$= 0.9532$$

$$K_{FULL\ OPEN} = 2\frac{A_F}{A_{PIPE}}(1 - \sin\phi)\beta$$

$A_F \approx A_{PIPE}$

$$= 2(1 - \sin\phi)\beta$$

$$= 2(1 - 0.9532)\beta$$

$$= 0.0935\beta$$

FROM VALVE DATA SHEET (PSBP 106230)
$\frac{L}{D}$ OF THIS VALVE = 60

or $K_{FULL\ OPEN} = \frac{fL}{D} = 0.014 \times 60 = 0.84$

$0.0935\beta = 0.84$ or $\beta = 8.98$

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST	ID NO. S-2-SJ-MDC-1394	SHEET 17 OF
		REFERENCE	
	ORIGINATOR	V. CHANDRA 0	
	DATE	14 OCT 1994	
	PEER REVIEW	aug	
	DATE	10/22/94	

$$\Delta P_{CHECK\ VALVE} \approx \rho \cdot (1 - \sin\phi)\ 8.98\ V^2$$

$$= \rho\ 8.98 (1 - \sin\phi) \cdot V^2$$

$$= \frac{1}{2} \rho \left[17.96 (1 - \sin\phi)\right] V^2 = \frac{1}{2} \rho V^2 K_{CHK}$$

FOR TWO CHECK VALVES IN SERIES

$$\Delta P_{2\ CHK\ VALVES} = 2 * \Delta P_{CHECK\ VALVE}.$$

FROM THE DEFINITION ABOVE

$$K_{CHK} = 17.96 (1 - \sin\phi)$$

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST	ID NO. S-2-SJ-MDC-1394			SHEET 18 OF
		REFERENCE			
ORIGINATOR	V.CHANDRA 0	V.CHANDRA 1	V.CHANDRA 2		
DATE	15SEP1994	25JAN1996	OCT 20, 2003		
PEER REVIEW	ang	ang	JH		
DATE	10/22/04	2-2-96	10/22/2003		

3.4. GATE VALVE SJ54 △2

VALVE OPENING STROKE TIME = SEE PAGE 17A

THE FOLLOWING TABLE SHOWS THE RELATIONSHIP BETWEEN VALVE OPEN FRACTION AND NON DIMENSIONAL VALVE C_V.

NON DIMENSIONAL VALVE $C_V = \frac{C_V}{C_{V_0}}$

WHERE C_{V0} = FULL OPEN VALVE C_V.

VALVE OPEN FRACTION	$\frac{C_V}{C_{V_0}}$
0.00	0.0
0.05	0.0194
0.10	0.055
0.20	0.10
0.30	0.146
0.40	0.204
0.50	0.277
0.60	0.3536
0.70	0.4613
0.80	0.6086
0.90	0.767
1.00	1.0

FULL OPEN VALVE LOSS FACTOR = 0.15

LOSS FACTOR AT ANY POSITION = $\frac{0.15}{(C_V/C_{V_0})^2}$

FORM 2

	CALCULATION CONTINUATION SHEET	SHEET: 19

CALC. NO.: S-2-SJ-MDC-1394			REFERENCE:				
ORIGINATOR,DATE	REV:	V. Chandra Oct. 20, 2003	2				
REVIEWER/VERIFIER,DATE		James Murphy 10/22/2003					

ACTUAL MEASURED STROKE TIME OF FOUR SJ 54 VALVES ARE AS FOLLOWS

VALVE	OPEN STROKE TIME (Sec.)	REFERENCE
21SJ54	19.9	ATTACHMENT 1
22 SJ54	19.3	"
23 SJ54	21.9	"
24 SJ54	20.6	"

TO KEEP THE ANALYSIS CONSERVATIVE (SHORTEST TIME FOR ACCEPTANCE CRITERION) 19.3 SEC. OPEN STROKE TIME WILL BE USED.

3.5 PIPING BETWEEN ACCUMULATOR AND COLD LEG

TABLE 3. SHOWS THE PIPING AND FITTING DETAILS

$$\sum_i \frac{L_i}{A_i} = \frac{0.677}{0.437} + \frac{0.287}{0.547} + \frac{75.448}{0.394} + \frac{15.016}{0.548} \quad ft^{-1}$$

$$= 1.55 + 0.525 + 191.5 + 27.4 \quad ft^{-1}$$

$$= 221.0 \quad ft^{-1}$$

WHERE L_i = LENGTH OF PIPE SEGMENT HAVING AREA A_i

FOLLOWING ARE THE DETAILS OF FRICTION ELEMENTS

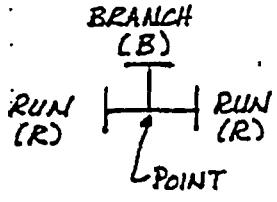
DESCRIPTION	REF. AREA (ft^2)	LOSS FACTOR K	$\frac{K}{A^2}$ (ft^{-4})
75.448 ft OF 8.57 ID PIPE	0.394	1.62	10.4
APPROX 16 ft OF 10.02 ID PIPE	0.548	0.29	0.97
ONE TEE BR	0.437	0.51	2.67
TWO TEE RUNS	0.394	0.12	0.77
FOUR LR 90° EL	0.394	0.8	5.15
TWO SR 90° EL	0.394	0.56	3.61
ONE LR 90° EL	0.548	0.18	0.60
THREE SR 90° EL	0.548	0.81	2.70
ONE ENTRANCE	0.394	0.5	3.22
ONE EXIT	0.394	1.0	6.44
(VALVES ARE NOT INCLUDED HERE).			$\sum \frac{K}{A^2} = 36.53\ ft^{-4}$

TABLE 3. 23 ACCUMULATOR DISCHARGE PIPING.
#23 ACCUM

FROM POINT CONN. @ EL. 78'-10"
TO POINT RCP COLD LEG @ EL. 97'-0"

PIPE		FITTINGS					VALVES		
I.D.	No. of FT.	LR 90° ELL	SR 90° ELL	90° ELL 4.167' R.	TEE B	TEE R	FA-93	FA-32	
8.952"	0.677'				1				
10.019"	0.287'								
8.5"	75.448'	IIII (4)	II (2)	1		II(2)	1 (1)	II (2)	
10.02	15.016'	I (1)	III (3)					~~I (1)~~	

FA-32 - CL. VALVE PSBP-106230 L/D = 60
FA-93 - M.O.V. GATE PSBP 19164 L/D = 12



TEES

3.6 PIPING BETWEEN HOT LEG AND PRESSURIZER (SURGE LINE)

THIS PIPING IS ABOUT 65 ft LONG AND ITS I.D. IS 12".

$$\frac{L}{A} = \frac{65}{3.14} = 20.7\ ft^{-1}$$

$$\Sigma \frac{K}{A^2} \approx \frac{3}{3.14^2} = 0.304\ ft^{-4}$$ (THIS IS NEGLIGIBLE COMPARED TO $\frac{K}{A^2}$ OF ACCUMULATOR DISCHARGE LINE).

3.7.1 EQUATIONS OF MOTION (REACTOR HEAD ON)

FOR FLOW THROUGH A SERIES OF VARIOUS DIAMETER PIPES, THE FOLLOWING EQUATION OF MOTION IS APPLICABLE

$$(P_A + \rho g Z_A) - (P_P + \rho g Z_P) = \left(\sum_i \frac{\rho_i K_i}{A_i^2}\right)\frac{1}{2}Q^2 + \Delta P_{f\,VALVES} + \left(\sum_i \frac{L_i}{A_i}\rho_i\right)\frac{dQ}{dt}$$

$$\sum_i \frac{\rho_i L_i}{A_i} = 1.94\,(221 + 20.7)\ \frac{SLUG}{ft^3}\cdot\frac{1}{ft}$$
$$= 468.9\ \frac{SLUG}{ft^4}$$

$$\frac{1}{2}\sum \frac{\rho_i K_i}{A_i^2} = \frac{1}{2}\left[1.94 * 36.53 + 1.94 * 0.304\right] \cancel{+ 8.19}\ ] \quad \triangle 1$$
$$= \overset{35.75}{\cancel{39.82}}\ \frac{SLUG}{ft^7}$$

or
$$468.9\ \frac{dQ}{dt} = (P_A + \rho g Z_A) - (P_P + \rho g Z_P) - \overset{35.75}{\cancel{39.82}}\,Q^2 - \Delta P_{f\,VALVES} \quad (6)$$

$\Delta P_{f\,VALVES}$ = SUM OF FRICTIONAL PRESSURE DROP ACROSS SJ54, SJ55, AND SJ56 VALVES AND IS AVAILABLE FROM SECTIONS 3.3 AND 3.4.

NOTE:
- Q = LIQUID VOL. FLOWRATE
- P_A = GAS PRESSURE IN THE ACCUMULATOR
- P_P = GAS PRESSURE IN THE PRESSURIZER

FROM SECTION 3.1

$$Z_A = \frac{V_{WA} + 7869.6}{95.72} \quad (7)$$

FROM ACCUMULATOR GEOMETRY

$$V_{WA} = 1350 - V_{NA} \quad (8)$$

V_{WA} = WATER VOLUME IN ACCUMULATOR

V_{NA} = NITROGEN VOLUME IN THE ACCUMULATOR

GAS EXPANSION IS GOVERNED BY THE FOLLOWING EQUATION

$n \approx 1.3$

$$P_A V_{AN}^n = P_{AO} V_{ANO}^n$$

or

$$P_A = P_{AO} \left(\frac{V_{ANO}}{V_{AN}} \right)^n \quad (9)$$

THE RATE OF CHANGE OF GAS VOLUME IN THE ACCUMULATOR IS

$$\frac{dV_{AN}}{dt} = Q \quad (10)$$

FROM SECTION 3.2

$$Z_P = \frac{V_{WP} + 4092.3}{38.34} \quad (11)$$

ALSO

$$\frac{dV_{WP}}{dt} = Q \quad (12)$$

EQUATIONS (6) THROUGH (12) CAN BE SOLVED SIMULTANEOUSLY. THE UNKNOWN VARIABLES ARE Q, P_A, Z_A, Z_P, V_{WA}, V_{NA}, AND V_{WP}.

INITIAL CONDITIONS ARE

$V_{WA} = 930.1\ ft^3$

$V_{WP} = 758\ ft^3$

$P_A = 84.7\ psia$

$Q = 0\ ft^3/s$

$\phi = 0$ Radian

EQUATIONS (6) THROUGH (12) HAVE BEEN SOLVED NUMERICALLY USING A FORTRAN COMPUTER PROGRAM THE LISTING OF COMPUTER PROGRAM IS SHOWN IN THE FOLLOWING PAGES.

~~p. 24~~ p 26

S-2-SJ-MDC-1394 Rev. 2

COMPUTER PROGRAM LISTING

REACTOR HEAD IS ON
CHECK VALVE IS FREE
SJ54 OPENING TIME = 19.3 Sec.

```
      OPEN(1,FILE='Acchon free.out', STATUS='old')
      DATA VVOF/0.,.05,.1,.2,.3,.4,.5,.6,.7,.8,.9,1./
      DATA CVCV/0., 0.0194, 0.055, 0.1, 0.146, 0.204,
     #       0.277,0.3536,0.4613,0.6086,0.767,1./
C  PARAMETERS
      GAM=1.3
      G=32.174
      RHO=1.94
      AREA=0.394
      DT=0.01
      PPRES=14.7*144.
C  INITIAL CONDITIONS
      TIME=0.1
      NSTEP=-1
      VNAZ=419.9
      VNA=VNAZ
      PAZ=84.7*144.
      PA=PAZ
      Q=.001
      VWP=758.
      WRITE(1,101)
  101 FORMAT(T19'TIME',  T28'ACCUMULATOR PRESSURE   FLOW RATE')
  103 FORMAT(T19'(SEC.)',T28'          (PSIG)          (GPM)  ',//)
      WRITE(1,103)
   31 NSTEP=NSTEP+1
      TIME=TIME+DT
C  CALCULATE ACCUMULATOR LEVEL ELEVATION
      VWA=1350.-VNA
      ZA=(VWA+7814.85)/95.72
C  CALCULATE PRESSURIZER LEVEL ELEVATION
      ZP=(VWP+4092.3)/38.34
C  CALCULATE ACCUMULATOR GAS PRESSURE
      PA=PAZ*(VNAZ/VNA)**GAM
C  CALCULATE SJ54 LOSS FACTOR
      VOT1=19.3
      GVKZ=.15
      IF(TIME .LT. VOT1) THEN
          VOF=TIME/VOT1
          CALL INTER(VOF,CVND,12,VVOF,CVCV)
          GVK=GVKZ/(CVND*CVND)
        ELSE
          GVK=GVKZ
      ENDIF
C  CALCULATE CHECK VALVE DP
      VEL=Q/AREA
      AV2=38.3/(VEL*VEL)
      SINPHI=0.5*(SQRT(AV2**2+4.)-AV2)
      IF (SINPHI .GE. 0.9532) SINPHI=0.9532
      DPCHK=2.*8.98*RHO*VEL*VEL*(1.-SINPHI)
C  CALCULATE DERIVATIVES
      DQDT=(PA+RHO*G*ZA-PPRES-RHO*G*ZP-35.75*Q*ABS(Q)
     #       -0.5*GVK*1.94*Q*ABS(Q)/AREA**2 - DPCHK)/468.9
      DVNADT=Q
      DVWPDT=Q
C  CALCULATE VALUES AT NEW TIME STEP
      QQ=Q+DQDT*DT
      VVNA=VNA+DVNADT*DT
      VVWP=VWP+DVWPDT*DT
      IF (TIME .LE. 2.) THEN
      IF(MOD(NSTEP,10) .EQ. 0)WRITE(1,102) TIME,+(PA/144.-14.7),
     #   Q*7.48*60.
      ELSE
      IF(MOD((NSTEP+10),100) .EQ. 0)WRITE(1,102) TIME,+(PA/144.-14.7),
     #   Q*7.48*60.
      ENDIF
  102 FORMAT(F23.3,8F17.2)
C  UPDATE THE OLD VARIABLES
          Q=QQ
          VNA=VVNA
          VWP=VVWP
      IF(TIME .GT. 40.) STOP
```

```
      SUBROUTINE INTER(X,Y,N,XX,YY)
      DIMENSION XX(N),YY(N)
      IF(X .LT. XX(1) .OR. X .GT. XX(N)) GO TO 3
      DO 2 J=2,N
      IF(X .GE. XX(J-1) .AND. X .LE. XX(J)) GO TO 101
      GO TO 2
  101 Y=YY(J-1)+(YY(J)-YY(J-1))*(X-XX(J-1))/
     1  (XX(J)-XX(J-1))
      RETURN
    2 CONTINUE
    3 WRITE(6,1) X,(XX(I),I=1,N)
    1 FORMAT('  BEYOND RANGE',G10.4,5X,20G10.4)
      RETURN
      END
```

3.7.2. EQUATIONS OF MOTION (REACTOR HEAD OFF)

LET p_C = AIR PRESSURE IN THE CAVITY

Z_C = ELEVATION OF WATER SURFACE

$$(p_A + \rho g Z_A) - (p_C + \rho g Z_C) = \left(\sum_i \frac{\rho_i K_i}{A_i^2}\right)\frac{1}{2} Q^2 + \Delta p_{f\,VALVES} + \left(\sum_i \frac{L_i}{A_i}\rho_i\right)\frac{dQ}{dt}$$

$$\sum_i \frac{\rho_i L_i}{A_i} = 1.94 * 221 = 428.7 \ \frac{SLUG}{ft^4}$$

$$\frac{1}{2}\sum \frac{\rho_i K_i}{A_i^2} \approx \cancel{39.82}\ 35.75 \ \frac{SLUG}{ft^7}$$ 1

$$428.7 \frac{dQ}{dt} = (p_A + \rho g Z_A) - (p_C + \rho g Z_C) - \cancel{39.82}\ 35.75\, Q^2 - \Delta p_{f\,VALVES} \quad (13)$$

$$Z_A = \frac{V_{WA} + 7869.6}{95.72} \quad (14) \quad \text{SAME AS EQN. (7)}$$

$$V_{WA} = 1350 - V_{NA} \quad (15) \quad \text{SAME AS EQN. (8)}$$

$$p_A = p_{A0}\left(\frac{V_{AN0}}{V_{AN}}\right)^n \quad (16) \quad \text{SAME AS EQN (9)}$$

$$\frac{dV_{AN}}{dt} = Q \quad (17) \quad \text{SAME AS EQN (10)}$$

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST	ID NO. S-2-SJ-MDC-1394 REFERENCE	SHEET 29 OF
	ORIGINATOR V. CHANDRA 0		
	DATE 21 OCT 1994		
	PEER REVIEW ang		
	DATE 10/12/97		

DURING THIS TEST, THE AIR PRESSURE IN THE CAVITY AND THE WATER LEVEL CHANGES ARE NEGLIGIBLE. THEREFORE, $Z_C = 127$ ft WILL BE USED

$$p_C = 14.7 * 144 \ \frac{lb_f}{ft^2}$$

EQUATIONS (13) THROUGH (17) CAN NOW BE SOLVED SIMULTANEOUSLY.

~~p. 28~~ p. 30

S-2-SJ-MDC-1394 Rev. 2

COMPUTER PROGRAM LISTING

REACTOR HEAD IS OFF
CHECK VALVE IS FREE
SJ54 OPENING TIME= 19.3 Sec.

```
      OPEN(1,FILE='Acchoff free.out', STATUS='OLD')
      DATA VVOF/0.,.05,.1,.2,.3,.4,.5,.6,.7,.8,.9,1./
      DATA CVCV/0., 0.0194, 0.055, 0.1, 0.146, 0.204,
     #       0.277,0.3536,0.4613,0.6086,0.767,1./
C  PARAMETERS
      GAM=1.3
      G=32.174
      RHO=1.94
      AREA=0.394
      DT=0.01
      PCAV=14.7*144.
C  INITIAL CONDITIONS
      TIME=0.1
      NSTEP=-1
      VNAZ=419.9
      VNA=VNAZ
      PAZ=84.7*144.
      PA=PAZ
      Q=.001
      ZCAV=127.
      WRITE(1,101)
  101 FORMAT(T19'TIME',  T28'ACCUMULATOR PRESSURE   FLOW RATE')
  103 FORMAT(T19'(SEC.)',T28'        (PSIG)            (GPM)  ',//)
      WRITE(1,103)
   31 NSTEP=NSTEP+1
      TIME=TIME+DT
C  CALCULATE ACCUMULATOR LEVEL ELEVATION
      VWA=1350.-VNA
      ZA=(VWA+7814.85)/95.72
C  CALCULATE ACCUMULATOR GAS PRESSURE
      PA=PAZ*(VNAZ/VNA)**GAM
C  CALCULATE SJ54 LOSS FACTOR
      VOT1=19.3
      GVKZ=.15
      IF(TIME .LT. VOT1) THEN
          VOF=TIME/VOT1
          CALL INTER(VOF,CVND,12,VVOF,CVCV)
          GVK=GVKZ/(CVND*CVND)
        ELSE
          GVK=GVKZ
      ENDIF
C  CALCULATE CHECK VALVE DP
      VEL=Q/AREA
      AV2=38.3/(VEL*VEL)
      SINPHI=0.5*(SQRT(AV2**2+4.)-AV2)
      IF (SINPHI .GE. 0.9532) SINPHI=0.9532
      DPCHK=2.*8.98*RHO*VEL*VEL*(1.-SINPHI)
C  CALCULATE DERIVATIVES
      DQDT=(PA+RHO*G*ZA-PCAV-RHO*G*ZCAV-35.75*Q*ABS(Q)
     #       -0.5*GVK*1.94*Q*ABS(Q)/AREA**2 - DPCHK)/428.7
      DVNADT=Q
C  CALCULATE VALUES AT NEW TIME STEP
      QQ=Q+DQDT*DT
      VVNA=VNA+DVNADT*DT
      IF (TIME .LE. 2.) THEN
      IF(MOD(NSTEP,10) .EQ. 0)WRITE(1,102) TIME,+(PA/144.-14.7),
     #   Q*7.48*60.
      ELSE
      IF(MOD((NSTEP+10),100) .EQ. 0)WRITE(1,102) TIME,+(PA/144.-14.7),
     #   Q*7.48*60.
      ENDIF
  102 FORMAT(F23.3,8F17.2)
C  UPDATE THE OLD VARIABLES
          Q=QQ
          VNA=VVNA
      IF(TIME .GT. 41.) STOP
      GO TO 31
      END
      SUBROUTINE INTER(X,Y,N,XX,YY)
      DIMENSION XX(N),YY(N)
      IF(X .LT. XX(1) .OR. X .GT. XX(N)) GO TO 3
```

```
      GO TO 2
  101 Y=YY(J-1)+(YY(J)-YY(J-1))*(X-XX(J-1))/
     1  (XX(J)-XX(J-1))
      RETURN
    2 CONTINUE
    3 WRITE(6,1) X,(XX(I),I=1,N)
    1 FORMAT('  BEYOND RANGE',G10.4,5X,20G10.4)
      RETURN
      END
```

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST.	ID NO. S-2-SJ-MDC-1394	SHEET 32 OF 41
		REFERENCE	

ORIGINATOR	V. CHANDRA	0	V. CHANDRA	2		
DATE	14 OCT 1994		21 OCT. 2003			
PEER REVIEW	[illegible]		JM			
DATE	10/27/94		10/22/2003			

4. RESULTS

THE FOLLOWING THREE CASES WERE RUN FOR REACTOR HEAD ON CONFIGURATION.

1. CHECK VALVE IS FREE
2. CHECK VALVE MAXIMUM SWING ANGLE FROM CLOSED POSITION IS 60 DEGREES.
3. CHECK VALVE MAXIMUM SWING ANGLE FROM CLOSED POSITION IS 30 DEGREES.

TABLES 4.1, 4.2, AND 4.3 SHOW THE ACCUMULATOR PRESSURE TIME HISTORY AND DISCHARGE FLOW RATE TIME HISTORY FOR EACH CASE. THESE CURVES ARE PLOTTED IN FIGURES 4.1 AND 4.2.

CASE 4 WAS RUN FOR REACTOR HEAD OFF CONFIGURATION. AND THE CHECK VALVE WAS CONSIDERED FREE TO MOVE. THE ACCUMULATOR PRESSURE AND DISCHARGE FLOW RATES ARE SHOWN IN TABLE 4.4.

BY COMPARISON OF RESULTS OF TABLE 4.1 AND 4.4, IT IS CONCLUDED THAT THE PRESSURE DECAY TIME IS NEARLY EQUAL WHETHER THE TEST IS DONE WITH THE HEAD ON OR OFF. (ACTUALLY, THE PRESSURE DECAY TIME WITH REACTOR HEAD OFF IS 0.5 SEC. LESS THAN THE PRESSURE DECAY TIME WITH HEAD ON. ADJUSTMENT FOR THIS WILL BE MADE WHEN ACCEPTANCE CRITERION IS ESTABLISHED).

TABLE 4.1 ACCUMULATOR PRESSURE AND DISCHARGE FLOW RATE

TIME (SEC.)	ACCUMULATOR PRESSURE (PSIG)	FLOW RATE (GPM)
0.110	70.00	0.45
0.210	69.99	164.18
0.310	69.98	241.78
0.410	69.97	318.75
0.510	69.95	394.99
0.610	69.92	470.45
0.710	69.89	545.13
0.810	69.86	619.07
0.910	69.82	692.35
1.010	69.78	772.14
1.110	69.73	887.79
1.210	69.67	1010.82
1.310	69.61	1134.00
1.410	69.54	1256.11
1.510	69.47	1376.81
1.610	69.39	1495.91
1.710	69.30	1613.26
1.810	69.20	1728.74
1.910	69.10	1842.21
2.010	68.99	1947.45
3.010	67.69	2638.34
4.010	66.09	3170.58
5.010	64.31	3589.22
6.010	62.42	3874.58
7.010	60.48	4107.54
8.010	58.55	4257.08
9.010	56.64	4361.32
10.010	54.79	4404.47
11.010	53.02	4404.78
12.010	51.33	4377.50
13.010	49.73	4340.18
14.010	48.21	4285.90
15.010	46.77	4222.96
16.010	45.41	4148.19
17.010	44.12	4066.23
18.010	42.91	3981.22
19.010	41.77	3895.71
20.010	40.69	3805.64
21.010	39.67	3711.51
22.010	38.71	3618.71
23.010	37.80	3528.14
24.010	36.94	3428.49
25.010	36.13	3322.20
26.010	35.36	3215.85
27.011	34.64	3111.24
28.011	33.96	3008.78
29.011	33.32	2908.51
30.011	32.72	2810.37
31.011	32.15	2714.27
32.011	31.61	2620.13
33.010	31.09	2527.84
34.010	30.61	2437.36
35.010	30.15	2348.62
36.010	29.72	2261.57
37.010	29.31	2176.19
38.010	28.92	2092.45
39.009	28.55	2010.35
40.009	28.20	1929.90

S-2-SJ-MDC-1394 Rev.2
CHECK VALVE IS FREE
REACTOR HEAD IS ON
SJ54 V.O.T. = 19.3 Sec.

TIME = 26.5 Sec. WHEN P = 35 psig

S-2-SJ-MDC-1394, Rev. 2

CHECK VALVE MAXIMUM SWING = 60 DEG.
REACTOR HEAD ISON
SJ54 OPENING STROKE TIME = 19.3 sec.

TIME (SEC.)	ACCUMULATOR PRESSURE (PSIG)	FLOW RATE (GPM)
0.110	70.00	0.45
0.210	69.99	164.18
0.310	69.98	241.78
0.410	69.97	318.75
0.510	69.95	394.99
0.610	69.92	470.45
0.710	69.89	545.13
0.810	69.86	619.07
0.910	69.82	692.35
1.010	69.78	772.14
1.110	69.73	887.79
1.210	69.67	1010.82
1.310	69.61	1134.00
1.410	69.54	1256.11
1.510	69.47	1376.81
1.610	69.39	1495.91
1.710	69.30	1613.26
1.810	69.20	1728.74
1.910	69.10	1842.21
2.010	68.99	1947.45
3.010	67.70	2582.12
4.010	66.16	3015.34
5.010	64.48	3323.85
6.010	62.74	3532.50
7.010	60.97	3695.60
8.010	59.21	3790.50
9.010	57.49	3849.96
10.010	55.83	3865.05
11.010	54.23	3851.21
12.010	52.70	3819.73
13.010	51.25	3782.07
14.010	49.86	3733.64
15.010	48.55	3680.10
16.010	47.30	3619.34
17.010	46.11	3554.57
18.010	44.98	3488.44
19.010	43.91	3422.33
20.010	42.90	3353.34
21.010	41.93	3282.19
22.010	41.01	3212.35
23.010	40.14	3144.20
24.010	39.31	3077.69
25.010	38.52	3012.73
26.010	37.76	2949.23
27.011	37.04	2887.12
28.011	36.35	2826.31
29.011	35.69	2766.73
30.011	35.06	2708.33
31.011	34.46	2651.03
32.011	33.88	2594.79
33.010	33.32	2539.54
34.010	32.79	2485.24
35.010	32.28	2431.85
36.010	31.79	2379.31
37.010	31.32	2327.60
38.010	30.86	2276.66
39.009	30.43	2226.47
40.009	30.01	2176.98

> TIME = 30.1 sec. WHEN P = 35 psig

TABLE 4.3

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CHECK VALVE MAXIMUM SWING ANGLE = 30 DEG.
REACTOR HEAD IS ON SJ54 OPENING STROKE TIME = 19.3 SEC.

TIME (SEC.)	ACCUMULATOR PRESSURE (PSIG)	FLOW RATE (GPM)
0.110	70.00	0.45
0.210	69.99	164.18
0.310	69.98	241.78
0.410	69.97	318.75
0.510	69.95	394.99
0.610	69.92	470.45
0.710	69.89	545.13
0.810	69.86	619.07
0.910	69.82	692.35
1.010	69.78	772.14
1.110	69.73	887.79
1.210	69.67	1008.44
1.310	69.61	1124.97
1.410	69.54	1236.94
1.510	69.47	1344.11
1.610	69.39	1446.32
1.710	69.30	1543.50
1.810	69.21	1635.61
1.910	69.12	1722.68
2.010	69.02	1799.65
3.010	67.87	2226.40
4.010	66.57	2475.50
5.010	65.20	2624.60
6.010	63.81	2709.49
7.010	62.43	2765.92
8.010	61.08	2789.03
9.010	59.76	2796.51
10.010	58.48	2786.43
11.010	57.25	2766.27
12.010	56.06	2740.57
13.010	54.92	2712.97
14.010	53.82	2682.00
15.010	52.76	2649.57
16.010	51.75	2615.01
17.010	50.77	2579.47
18.010	49.83	2543.88
19.010	48.93	2508.46
20.010	48.07	2472.12
21.010	47.23	2435.41
22.010	46.43	2399.42
23.010	45.66	2364.17
24.010	44.91	2329.62
25.010	44.19	2295.74
26.010	43.50	2262.51
27.011	42.83	2229.88
28.011	42.19	2197.84
29.011	41.56	2166.36
30.011	40.96	2135.42
31.011	40.37	2104.99
32.011	39.81	2075.06
33.010	39.26	2045.60
34.010	38.73	2016.60
35.010	38.22	1988.04
36.010	37.72	1959.90
37.010	37.24	1932.17
38.010	36.77	1904.83
39.009	36.32	1877.87
40.009	35.88	1851.27

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CHECK VALVE IS FREE
REACTOR HEAD IS OFF
SJ54 V.O.T. = 19.3 Sec.

TIME (SEC.)	ACCUMULATOR PRESSURE (PSIG)	FLOW RATE (GPM)
0.110	70.00	0.45
0.210	69.99	164.61
0.310	69.98	242.41
0.410	69.97	319.57
0.510	69.94	395.99
0.610	69.92	471.63
0.710	69.89	546.48
0.810	69.86	620.59
0.910	69.82	694.04
1.010	69.78	774.60
1.110	69.73	892.36
1.210	69.67	1016.66
1.310	69.61	1140.75
1.410	69.54	1263.64
1.510	69.47	1385.05
1.610	69.38	1504.82
1.710	69.29	1622.79
1.810	69.20	1738.85
1.910	69.09	1852.87
2.010	68.98	1958.04
3.010	67.68	2645.61
4.010	66.08	3179.17
5.010	64.29	3599.07
6.010	62.40	3885.53
7.010	60.46	4122.29
8.010	58.51	4275.47
9.010	56.60	4384.67
10.010	54.74	4432.70
11.010	52.96	4438.69
12.010	51.26	4417.98
13.010	49.64	4387.92
14.010	48.11	4340.99
15.010	46.65	4285.74
16.010	45.28	4218.67
17.010	43.97	4144.63
18.010	42.74	4067.87
19.010	41.58	3990.75
20.010	40.48	3908.79
21.010	39.44	3822.80
22.010	38.46	3738.42
23.010	37.52	3656.46
24.010	36.64	3576.87
25.010	35.80	3497.20
26.010	35.00	3407.30
27.011	34.25	3315.17
28.011	33.53	3224.22
29.011	32.85	3135.23
30.011	32.21	3048.34
31.011	31.60	2963.48
32.011	31.02	2880.56
33.010	30.47	2799.50
34.010	29.94	2720.20
35.010	29.44	2642.58
36.010	28.97	2566.58
37.010	28.52	2492.12
38.010	28.08	2419.14
39.009	27.67	2347.60
40.009	27.28	2277.46
41.009	26.90	2208.67

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S-2-SJ-MDC-1394 Rev. 2

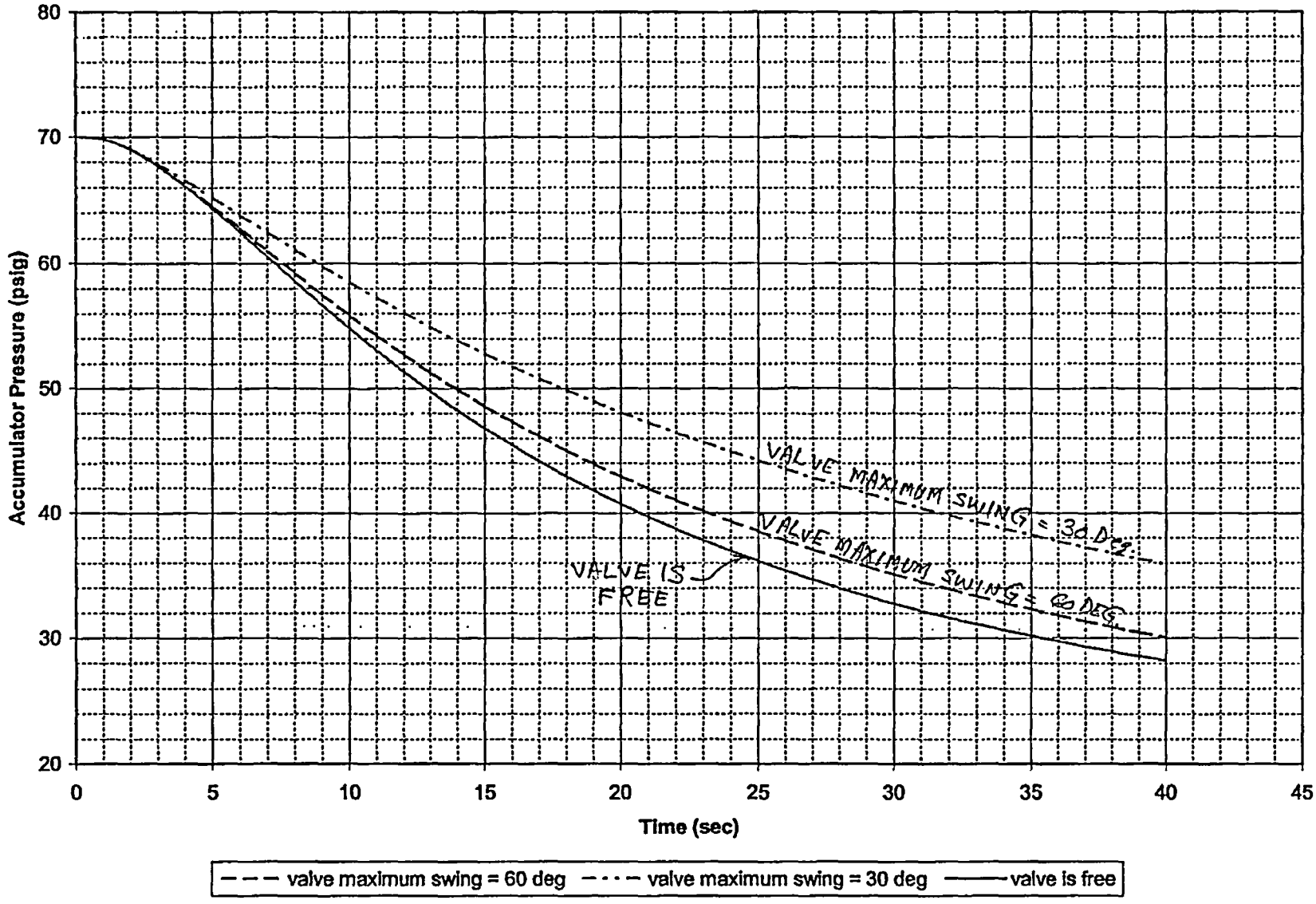

FIG 4.1 ACCUMULATOR PRESSURE TIME HISTORY (REACTOR HEAD IS ON V.O.T. = 19.3 Sec.)

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PRINTED 20050106

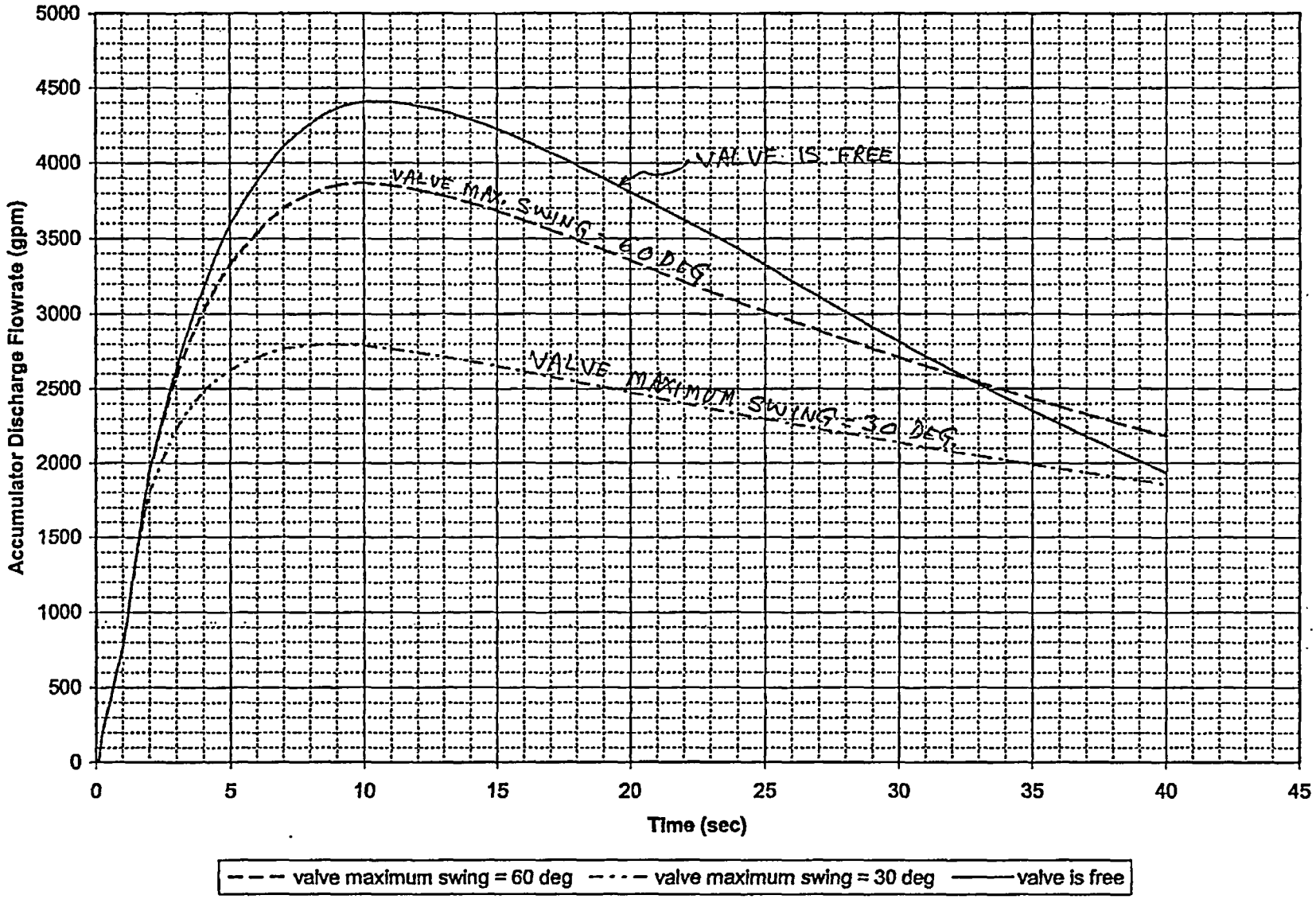

FIG 4.2 DISCHARGE FLOW RATE TIME HISTORIES (REACTOR HEAD ISON V.O.T. = 19.3 Sec.)

FORM 2

	CALCULATION CONTINUATION SHEET	SHEET: 39

CALC. NO.: S-2-SJ-MDC-1394			REFERENCE:				
ORIGINATOR,DATE	REV:	V. Chandra Oct. 20, 2003	2				
REVIEWER/VERIFIER,DATE		James Murphy					

5. CONCLUSIONS

As calculated in Section 4.0, the pressure decay time from 70 psig to 35 psig is nearly 26.5 seconds when the check valves are free. The pressure decay time when the check valve swings to a maximum open angle of 60 degrees is 30.1 seconds. As recommended in SER 99-028 issued for Relief Request V-24 and V-25 on March 12, 1999, the acceptance criterion should be 1.5 second less than the pressure decay time for 60 degree swing case. This would reduce the acceptance criterion to 28.6 seconds. Also since the test is done with reactor head off, the pressure decay time acceptance criterion will be further reduced by 0.5 seconds because the pressure decay time with the reactor head off is 0.5 second less than the pressure decay time with the head on. Therefore, the acceptance criterion to declare the valves operable shall be 28.1 seconds.

It is clear from the plots of flow rate (Fig. 4.2), the maximum flow rate during the test exceeds the minimum flow rate required (3537 gpm corresponding to 20 ft/sec velocity in 0.394 ft^2 flow area) to open the valve to its full open position.

A 50.59 Safety Evaluation is attached to this calculation.

PSEG CALCULATION CONTINUATION SHEET	TITLE ACCUMULATOR PRESSURE DECAY DURING DISCHARGE TEST.		ID NO. S-2-SJ-MDC-1394 / REFERENCE			SHEET 40 OF 41
	ORIGINATOR	V.CHANDRA	V.CHANDRA 2			
	DATE	15SEP1994	21 OCT 2003			
	PEER REVIEW	[illegible]	JH			
	DATE	10/22/97	10/22/2003			

6. LIST OF REFERENCES

1. "APPLICATION GUIDELINES FOR CHECK VALVES IN NUCLEAR POWER PLANT", EPRI REPORT EPRI NP-5479. JAN 1988.
2. PSE&G DRAWING 218213 Rev. 18; ACCUMULATOR AND ASSOCIATED PIPING ARRANGEMENT.
3. PSBP 109847, DELTA SOUTHERN CO. DRAWING OF UNIT 2 ACCUMULATOR
4. S2.OP.TM-ZZ-0002, Rev. 7 △2
5. SALEM 2 ACCUMULATOR VOLUME VS. % LEVEL CURVE
6. CBD DE-CB.RC-0042(Q) Rev. 1 PAGE F17-1.
7. PRESSURIZER WATER VOLUME VS. % LEVEL CURVE
8. LETTER FROM WESTINGHOUSE, NO. PSE-90-530 DT. MAY 21, 1990

96-0327 2544 3-92

S-2-SJ-MDC-1394 Rev. 2.
ATT 1, P 1 OF 4

ATTACHMENT 15 (Cont'd)

Orders # 60016464 Valve ID 21 55 54

TEST DATA REVIEW

TEST PARAMETERS	TARGET SETPOINTS (Pre - Job)		TEST RESULTS (AS FOUND) TEST TYPE ____ TEST NO. ____ TEST DATE ____		TEST RESULTS (AS LEFT) TEST TYPE Static TEST NO. 18, 20 TEST DATE ____	
	CLOSE	OPEN	CLOSE	OPEN	CLOSE	OPEN
Target Thrust @ (CST)	n/a	N/A		N/A	12523	N/A
Min Req Torque @ (CST) (FT-LBS)	n/a	N/A		N/A	n/a	N/A
Maximum Allowable Thrust Reading Att. 13	85901	85901			69711	18784
Maximum Torque Switch Setting (TSS)	3.0	3.0	n/a		3.0	3.0
Maximum Allowable Torque (FT-LBS)	(C14) n/a (C16)			N/A	n/a	N/A
Assumed Stuffing Box Load (SBL) - (LBS) (packing load)	3500 ~~48-130~~ LK		AVG: MAX:	AVG: MAX:	AVG: 2448 MAX: 3757	AVG: 2596 MAX: 3757
Maximum Stroke Time (SECONDS)	23.2	23.2			20.8	19.9
Open Bypass Time 15 - 50 %	N/A	n/a	N/A		N/A	46%
Indication SAT/UNSAT	None				Sat	Sat

Limit Seated

Data Obtained By: H. CAMPBELL Reviewed By: L Keene

S-2-SJ-MDC-1394 Rev. 2
ATT 1. P 2 OF 4

ATTACHMENT 15 (Cont'd)

Orders # 60016465 Valve ID 225554

TEST DATA REVIEW

TEST PARAMETERS	TARGET SETPOINTS (Pre - Job)		TEST RESULTS (AS FOUND) TEST TYPE ____ TEST NO. ____ TEST DATE ____		TEST RESULTS (AS LEFT) TEST TYPE Static TEST NO. 15 TEST DATE ____	
Limit Stated	CLOSE	OPEN	CLOSE	OPEN	CLOSE	OPEN
LK ~~Target Thrust @ (CST)~~	n/a	N/A		N/A	57818	N/A
Min Req Torque @ (CST) (FT-LBS)	n/a	N/A		N/A	n/a	N/A
Maximum Allowable Thrust Reading Att. 13	85001	85601	n/a		80512	53637
Maximum Torque Switch Setting (TSS)	3.0	3.0			3.0	3.0
Maximum Allowable Torque (FT-LBS)	(C14) n/a (C16)			N/A	n/a	N/A
Assumed Stuffing Box Load (SBL) - (LBS) (packing load)	2500		AVG: MAX:	AVG: MAX:	AVG: 1860 MAX: 2690	AVG: 1763 MAX: 2380
Maximum Stroke Time (SECONDS)	Expected 23.2	ST 23.2			20.6	19.3
Open Bypass Time 15 - 50 %	N/A	* n/a	N/A		N/A	8.0% missed
Indication SAT/UNSAT	None				Sat	Sat

Data Obtained By: J. RADFORD Reviewed By: J. Keene

* Torque Switch Set @ 3.0/3.0

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ATT 1. p 3 of 4

ATTACHMENT 15 (Cont'd)

Orders #60016462 Valve ID 23 - SJ - 54

TEST DATA REVIEW

TEST PARAMETERS	TARGET SETPOINTS (Pre - Job)		TEST RESULTS (AS FOUND) TEST TYPE ____ TEST NO. ____ TEST DATE ____		TEST RESULTS (AS LEFT) TEST TYPE Static TEST NO. 9 & 11 TEST DATE 4/20/02	
	CLOSE	OPEN	CLOSE	OPEN	CLOSE	OPEN
Target Thrust @ (CST)	n/a	N/A		N/A	26817	N/A
Min Req Torque @ (CST) (FT-LBS)	n/a	N/A		N/A	438	N/A
Maximum Allowable Thrust Reading Att. 13	86066 LK ~~85965~~	81352			90979	53304
Maximum Torque Switch Setting (TSS)	3.0	3.0	n/a		* 3.0	3.0
Maximum Allowable Torque (FT-LBS)	(C14) 1279 (C16) 2243			N/A	438 1297	N/A
Assumed Stuffing Box Load (SBL) - (LBS) (packing load)	2500		AVG: MAX:	AVG: MAX:	AVG: 3116 MAX: 3455	AVG: 2870 MAX: 4771
Maximum Stroke Time (SECONDS)	n/a				22.9	21.9
Open Bypass Time 15 - 50%	N/A	—	N/A		N/A	56.8
Indication SAT/UNSAT	None				Sat	Sat

* Limit Seated

Data Obtained By: J. BRADFORD Reviewed By: L Keene

S-2-SJ-MDC-1394, Rev. 2
ATT 1, p 4 of 4,

ATTACHMENT 15 (Cont'd)

Orders #600 16465 Valve ID 2155 54

TEST DATA REVIEW

TEST PARAMETERS	TARGET SETPOINTS (Pre - Job)		TEST RESULTS (AS FOUND) TEST TYPE ____ TEST NO. ____ TEST DATE ____		TEST RESULTS (AS LEFT) TEST TYPE Static TEST NO. 10 & 12 TEST DATE 4/26/02	
	CLOSE	OPEN	CLOSE	OPEN	CLOSE	OPEN
Target Thrust @ (CST)	n/a	N/A		N/A	11686	N/A
Min Req Torque @ (CST) (FT-LBS)	n/a	N/A		N/A	n/a	N/A
Maximum Allowable Thrust Reading Att. 13	85901	85901	n/a		77627	40900
Maximum Torque Switch Setting (TSS)	3.0	3.0			3.0	3.0
Maximum Allowable Torque (FT-LBS)	(C14) ~~n/a~~ (C16)			N/A	~~n/a~~	N/A
Assumed Stuffing Box Load (SBL) - (LBS) (packing load)	2500 ~~18-130LK~~		AVG: MAX:	AVG: MAX:	AVG: 2835 MAX: 3339	AVG: 2753 MAX: 3339
Maximum Stroke Time (SECONDS)	23.2	23.2			21.7	20.6
Open Bypass Time 15 - 50 %	N/A	—	N/A		N/A	37%
Indication SAT/UNSAT	None				Sat	Sat

Data Obtained By: H. CAMPBELL Reviewed By: L. Keene