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U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

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License Nos.	DPR-65
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DOMINION ENERGY NUCLEAR CONNECTICUT, INC.
MILLSTONE POWER STATION UNITS 2 AND 3
IN-SERVICE TESTING PROGRAM FOR PUMPS, VALVES, AND SNUBBERS
FIFTH AND FOURTH 10-YEAR INTERVAL UPDATES FOR UNITS 2 AND 3

Pursuant to 10 CFR 50.55a(f)(4)(ii), Dominion Energy Nuclear Connecticut, Inc. (DENC) submits the Millstone Power Station (Millstone) Units 2 (MPS2) and 3 (MPS3) Inservice Testing (IST) Programs for Pumps, Valves, and Snubbers for the fifth and fourth ten-year IST intervals, respectively. 10 CFR 50.55a(a)(1)(iv) refers to the American Society of Mechanical Engineers (ASME) Code for Operation and Maintenance (OM) of Nuclear Power Plants and includes the 2012 Edition. The Code reference became effective on August 17, 2017, and applies to the fifth IST interval for MPS2 and the fourth IST interval for MPS3. The IST Programs for the fifth and fourth intervals were updated to comply with the appropriate edition of the ASME OM Code. The IST Programs and associated summary of relief request changes for MPS2 and MPS3 are included in Enclosures 1 and 2, respectively. The fifth and fourth intervals begin on December 2, 2018 for both units.

Pursuant to 10 CFR 50.55a(f)(5)(iii), the proposed relief requests contained in the Millstone MPS2 fifth interval and MPS3 fourth interval IST Programs require Nuclear Regulatory Commission (NRC) review and approval before implementation. For Millstone MPS2 there are two relief requests associated with pumps (P-01 and P-02), two relief requests for valves (V-01 and V-02), and one relief request for snubbers (S-01). The NRC approved similar relief requests for P-01, V-01, and V-02 for the MPS2 fourth IST interval (Accession Number ML082470622). For MPS3 there are five relief requests associated with pumps (P-01 through P-05), no relief request for valves, and one relief request for snubbers (S-01). The NRC approved similar relief requests for P-01 and P-02 for the MPS3 third IST interval (Accession Number ML082470622). The proposed alternatives for MPS2 and MPS3 relief requests are included in Enclosures 1 and 2, respectively.

DENC requests NRC approval of the MPS2 and MPS3 IST program's relief requests by November 1, 2018. The remaining portions of the IST Programs are within the provisions of the Code and therefore do not require NRC approval for implementation.

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If you have any questions or require additional information, please contact Wanda Craft at (804)-273-4687.

Sincerely,

Mark D. Sartain
Vice President – Nuclear Engineering and Fleet Support

Enclosures:
1. Millstone Power Station Unit 2, Fifth Interval Inservice Testing Program and Associated Relief Requests
2. Millstone Power Station Unit 3, Fourth Interval Inservice Testing Program and Associated Relief Requests

Commitments made in this letter: None

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ENCLOSURE 1

Millstone Power Station Unit 2
Fifth 10-Year Interval Inservice Testing Program

Attachment 1	Summary of Proposed Relief Requests
Attachment 2	Proposed Relief Requests
Attachment 3	Inservice Testing Program Plan for Pumps and Valves, Fifth 10-Year Interval
Attachment 4	Inservice Testing Program Plan for Snubbers, Fifth 10-Year Interval

ATTACHMENT 1

Millstone Power Station Unit 2
Inservice Testing Program

Summary of Proposed Relief Requests for the Fifth 10-Year Interval

MILLSTONE POWER STATION UNIT 2
DOMINION ENERGY NUCLEAR CONNECTICUT, INC.

Millstone Power Station Unit 2
Inservice Testing Program
Summary of Proposed Relief Requests for the Fifth 10-Year Interval

Fifth Interval Proposed Relief Request	Relief Request Description	Fourth Interval Relief Request	Comments
None	General program relief to use OMN-20, which allows for application of 25% grace period when scheduling tests.	G-01	Previously approved request. Code Case OMN-20 is now incorporated by reference into 10 CFR 50.55a.
P-01	Low Pressure Safety Injection (LPSI) pump categorization. Allows the LPSI pumps to be tested as Group B pumps instead of Group A, except during refueling.	P-01	Previously approved request. The proposed alternative has been updated with editorial changes.
None	Use of Code Case OMN-6 for digital instruments.	P-02	OMN-6 has been incorporated into the 2012 edition under ISTB-3510(b)(2): Digital instruments shall be selected such that the reference value does not exceed 90% of the calibrated range of the instrument.
P-02	Smooth Running Pumps. Allows any vibration point with a reference value < 0.05 ips to be compared to an acceptable range based on 0.05 ips.	None	North Anna Power Station and Surry Power Station have similar approved relief requests.
V-01	Refueling Water Storage Tank (RWST) Back-leakage Valves Leakage Test Frequency. Exempt from 24 month frequency – 2-CS-14A/B tested every other refueling outage; others tested at a 60 month frequency.	V-01	Previously approved request. The proposed alternative has been updated to request relief as an acceptable level of quality and safety rather than a hardship The test history has also been updated.
V-02	Firewater to Auxiliary Feedwater Pump Suction Header Manual Valve Test Frequency	V-02	Previously approved request The proposed alternative has been updated with editorial changes.
S-01	Code Case OMN-13 – allows for extension of visual examinations on snubbers if additional requirements are met for service life monitoring.	None	Code Case OMN-13 is currently in use for the snubber program and approved for use by RG 1.192. The 2012 edition of the ASME OM Code erroneously does not include OMN-13 in the Code Case applicability statement.

ATTACHMENT 2

Millstone Power Station Unit 2
Inservice Testing Program

Proposed Relief Requests for the Fifth 10-Year Interval

MILLSTONE POWER STATION UNIT 2
DOMINION ENERGY NUCLEAR CONNECTICUT, INC.

Pump Relief Request P-01
Millstone Power Station Unit 2

Categorization of the Low Pressure Safety Injection Pumps as Group A/B

Proposed Alternative
In accordance with 10 CFR 50.55a(z)(1)

Alternative Provides an Acceptable Level of Quality and Safety

1) ASME Code Component(s) Affected

Pump(s): P-42A
P-42B
Group: A
Class: 2

2) Applicable Code Edition and Addenda

ASME OM Code 2012 Edition

3) Applicable Code Requirement(s)

ISTB-1400, Owner's Responsibility, paragraph (b), states, "identifying each pump to be tested in accordance with the rules of this Subsection, categorizing the pump as either a Group A or Group B pump, and listing the pumps in the plant records (see section ISTB-9000). A pump that meets both Group A and Group B pump definitions shall be categorized as a Group A pump."

4) Reason for Request

Pursuant to 10 CFR 50.55a, Codes and Standards, paragraph (z)(1), relief is requested from the requirement of ASME OM Code ISTB-1400(b). This relief will result in testing the Low Pressure Safety Injection pumps as Group B rather than Group A during power operations. This proposed relief will result in a lower potential for pump degradation due to pump wear while maintaining the capability of measuring pump performance. The basis of the relief request is that the proposed alternative would provide an acceptable level of quality and safety.

The LPSI pumps meet the categorization requirements of Group A pumps in that they are operated routinely during plant shutdowns and refueling outages. However, these pumps also meet the requirements of Group B, in that during normal operation (reactor critical) they are not operated except for testing.

MPS2 Pump Relief Request P-01 (Cont.)

5) Proposed Alternative and Basis for Use

DENC proposes that the LPSI pumps (P-42A and P-42B) be tested as standby pumps (Group B) during power operation and as continuously operating pumps (Group A) during refueling operations. During refueling operations, the comprehensive pump test may be substituted for a quarterly Group A test that comes due. DENC also proposes that any time a comprehensive pump test is performed, the Code-required quarterly low-flow test (Group B) requirement may be deleted for that quarter.

The quarterly pump test is procedurally controlled to ensure that flow rates are maintained above the pump manufacturers recommended minimum flow requirements (100 gpm) and that the pumps are not operated longer than 30 minutes to ensure that pump degradation is minimized during the quarterly pump test.

These pumps are vertical line shaft centrifugal type pumps that provide the low head safety injection function during power operations and provide reactor core cooling during the cooldown phase of shutdown cooling. During normal power operations, the LPSI pump is in a standby condition and is considered an essential part of the Emergency Core Cooling System (ECCS). Each pump starts automatically upon receipt of a safety injection actuation signal (SIAS), taking suction from the Refueling Water Storage Tank during the injection phase of an accident. The pumps discharge to the reactor coolant system.

ISTB-1400(b) states that if a pump meets both Group A and Group B definitions, it shall be categorized as a Group A pump. The LPSI pumps are currently tested during normal operation using the minimum flow recirculation loop.

The design flow rate for each Low Pressure Safety Injection pump is 3000 gpm. This flow rate can only be achieved during shutdown periods when injection into the reactor coolant system at a reduced pressure is possible.

Classifying these pumps as Group B during power operation minimizes the time required to perform quarterly testing. With minimum pump run-time requirements, and no requirements to record vibration levels, the length of each quarterly pump test and the accompanying unavailability time for these pumps should be reduced. Since these pumps are not operated routinely during plant operation, except for required surveillance testing, there is no time or wear-related degradation mechanism that would warrant performing more detailed quarterly tests on the LPSI pumps.

MPS2 Pump Relief Request P-01 (Cont.)

NUREG/CP-0137, Vol. 1, "Proceedings of the Third NRC/American Society of Mechanical Engineers (ASME) Symposium on Valve and Pump Testing," includes a report entitled, "Description of Comprehensive Pump Test Change to ASME Code, Subsection ISTB." This report details the philosophy of classifying pumps as Group A or Group B. According to the author, the intent of having different test requirements for different pump groups is to relate the requirements for the amount and degree of quarterly performance monitoring to the amount of degradation expected based on pump operation.

Testing the LPSI pumps quarterly as Group A pumps during power operation is contrary to the philosophy of the referenced report. Quarterly Group A testing would subject these pumps to increased test requirements and performance monitoring. It would also introduce the potential for more degradation due to pump wear (caused by low-flow operation) at a time when they are standby pumps and would not otherwise be subject to operation-induced degradation. Group A testing during power operation may be more detrimental to the long-term health of these components than Group B testing.

In Generic Letter (GL) 89-04, "Guidance on Developing Acceptable Inservice Testing Programs", (ADAMS Accession No. ML031150259), Position 9, the NRC determined 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 shutdown or refueling outages to perform a test of the pump under full or substantial flow conditions, the increased interval for flow measurement is an acceptable alternative to the Code requirements.

The proposed alternative to the specific requirements of ISTB-1400(b) identified above would provide adequate indication of pump performance and continue to provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(z)(1), DENC requests approval of this proposed alternative to the specific ISTB requirements identified in this request.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fifth 10-year IST interval that is scheduled to begin on December 2, 2018.

7) Precedents

Similar relief requests were previously approved;

- P-001 was previously approved by the NRC for Millstone Power Station in a letter dated October 24, 2008. (TAC Nos. MD7763 through MD771).
- SI-RR-01 was previously approved by the NRC for Calvert Cliffs in a letter dated March 14, 2008. (TAC Nos. MD5998 through MD6011).

Pump Relief Request P-02
Millstone Power Station Unit 2

Smooth Running Pumps

Proposed Alternative
In accordance with 10 CFR 50.55a(z)(1)

Alternative Provides an Acceptable Level of Quality and Safety

1) ASME Code Component(s) Affected

All pumps in the IST Program with vibration reference values of <0.05 inches per second (ips).

2) Applicable Code Edition and Addenda

ASME OM Code 2012 Edition

3) Applicable Code Requirement(s)

ISTB-3300, Reference Values

ISTB-3300(a) requires that initial reference values shall be determined from the results of testing meeting the requirements of paragraph ISTB-3100, Preservice Testing, or from the results of the first inservice test.

ISTB-3300(b) requires that new or additional reference values shall be established as required by paragraph ISTB-3310 or ISTB-3320, or subparagraph ISTB-6200(c).

ISTB-3300(f) requires that all subsequent test results shall be compared to these initial reference values or to new reference values established in accordance with paragraph ISTB-3310 or ISTB-3320, or subparagraph ISTB-6200(c).

ISTB-5100, Centrifugal Pumps (Except Vertical Line Shaft Centrifugal Pumps)

ISTB-5121(e) and ISTB-5123(e) require that for centrifugal pumps during their Group A test and comprehensive test that deviations from the reference values shall be compared with the ranges of Table ISTB-5121-1 and corrective action taken as specified in paragraph ISTB-6200. Vibration measurements shall be compared to both the relative and absolute criteria shown in the alert and required action ranges of Table ISTB-5121-1. For example, if vibration exceeds either 6Vr or 0.7 in/sec the pump is in the required action range.

MPS2 Pump Relief Request P-02 (Cont.)

ISTB-5200, Vertical Line Shaft Centrifugal Pumps

ISTB-5221(e) and ISTB-5223(e) require for vertical line shaft centrifugal pumps during their Group A test and comprehensive test that deviations from the reference values shall be compared with the ranges of Table ISTB-5221-1 and corrective action taken as specified in paragraph ISTB-6200. Vibration measurements shall be compared to both the relative and absolute criteria shown in the alert and required action ranges of Table ISTB-5221-1. For example, if vibration exceeds either 6Vr or 0.7 in/sec the pump is in the required action range.

ISTB-5300, Positive Displacement Pumps

ISTB-5321(e) and ISTB-5323(e) require for positive displacement pumps during their Group A test and comprehensive test that deviations from the reference values shall be compared with the ranges of Table ISTB-5321-1 or Table ISTB-5321-2, as applicable, and corrective action taken as specified in paragraph ISTB-6200. For reciprocating positive displacement pumps, vibration measurements shall be compared to both the relative and absolute criteria shown in the alert and required action ranges of Table ISTB-5321-2. For all other positive displacement pumps, vibration measurements shall be compared to both the relative and absolute criteria shown in the alert and required action ranges of Table ISTB-5321-1. For example, if vibration exceeds either 6Vr or 0.7 in/sec the pump is in the required action range.

4) Reason for Request

Pumps with vibration reference value (Vr) < 0.05 ips are identified as smooth running pumps. Each smooth running pump has at least one Vr that is currently less than 0.05 ips. Small values for Vr produce small acceptable ranges for pump operation. The acceptable ranges are defined in Tables ISTB-5121-1, ISTB-5221-1, ISTB-5321-1, and ISTB-5321-2 as less than or equal to 2.5Vr. Based on the small acceptable range, a smooth running pump could be subject to unnecessary increased testing if the measured vibration parameter exceeds this acceptable range.

For very small reference values, hydraulic noise and instrument error can be a significant portion of the reading and affect the repeatability of subsequent measurements. Also, operating experience from the Millstone Power Station Predictive Maintenance Program has shown that changes in vibration levels in the range of 0.05 ips do not normally indicate significant degradation in pump performance.

MPS2 Pump Relief Request P-02 (Cont.)

It should be noted that all of the pumps in the IST Program will remain in the Predictive Maintenance Program even if certain pumps have very low vibration readings and are considered to be smooth running pumps.

5) Proposed Alternative and Basis for Use

To avoid unnecessary increased testing, a minimum value for Vr of 0.05 ips has been proposed for velocity measurements. This minimum value will be applied to individual vibration locations for certain pumps whose measured reference value is less than 0.05 ips. When new reference values are established per ISTB-3310, ISTB-3320 or ISTB-6200(c), the measured parameters would be evaluated for each location to determine if the minimum value for Vr would apply.

In addition to the requirements of ISTB, the pumps in the ASME Inservice Testing Program are included in the Millstone Predictive Maintenance Program. The Millstone Predictive Maintenance Program currently employs predictive monitoring techniques such as:

- Vibration monitoring and analysis beyond that required by ISTB,
- Oil sampling and analysis where applicable (e.g., for pumps with sufficiently large oil reservoirs).

If the measured parameters are outside the normal operating range or are determined by analysis to be trending toward an unacceptable degraded state, appropriate actions are taken that may include:

- Increased monitoring to establish rate of change,
- Review of component specific information to identify cause, or
- Removal of the pump from service to perform maintenance.

For the smooth running pumps, if a measured reference value is below 0.05 ips for a particular vibration measurement location, then subsequent test results for that location may be compared to an acceptable range based on 0.05 ips. In addition to the Code requirements, the pumps in the IST Program are included in and will remain in the Millstone Predictive Maintenance Program even if certain pumps have very low vibration readings and are considered to be smooth running pumps. Also, appropriate actions will be taken if measured parameters are outside the normal operating range or are determined to be trending toward a degraded state. This proposed alternative to the requirements of ISTB-3300, ISTB-5100, ISTB-5200, ISTB-5300 and the associated tables provides adequate indication of pump performance and continues to provide an acceptable level of quality and safety.

MPS2 Pump Relief Request P-02 (Cont.)

Therefore, pursuant to 10 CFR 50.55a(z)(1), DENC requests approval of this proposed alternative to the specific ISTB requirements identified in this request.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fifth 10-year IST interval that is scheduled to begin on December 2, 2018.

7) Precedents

Pump Relief Request P-1 for Surry Power Station Unit 1 was approved by the NRC in a letter dated May 9, 2014. (TAC Nos. MF1811, MF1812, MF1815, MF1816, MF1818, MF1819, MF1821, MF1822 and MF1825)

Pump Relief Request P-1 for North Anna Unit 1 was approved by the NRC in a letter dated November 15, 2010. (TAC Nos. ME2776 and ME2777)

Pump Relief Request PRR-011 for Fermi 2 was approved by the NRC in a letter dated August 7, 2013. (TAC Nos. ME2552, ME2553, ME2554, ME2559)

Pump Relief Request PR-04 for Sequoyah Nuclear Plant Units 1 & 2 was approved by the NRC in a letter dated May 12, 2016. (TAC Nos. MF7099 and MF7100)

Valve Relief Request V-01
Millstone Power Station Unit 2

RWST Back-Leakage Valves Leakage Test Frequency

Proposed Alternative
In Accordance with 10 CFR 50.55a(z)(1)

Alternative Provides an Acceptable Level of Quality and Safety

1) ASME Code Component(s) Affected

Valve Number	3lass	Category	Function
2-CS-14A	2	AC	Refueling Water Storage Tank Outlet Header Check Valve
2-CS-14B	2	AC	RWST Outlet Header Check Valve
2-CS-050	2	A	Containment Spray to Recirculation Isolation Valve
2-CS-051	2	A	Containment Spray to Recirculation Isolation Valve
2-SI-459	2	A	Safety Injection System Test Header Downstream Isolation Valve
2-SI-460	2	A	Low Pressure Safety Injection /Containment Spray Test Header Stop Valve
2-SI-659	2	A	Engineered Safeguards Features (ESF) Pumps Min Flow Recirculation Header Isolation Valve
2-SI-660	2	A	ESF Pumps Min Flow Recirculation Header Isolation Valve

2) Applicable Code Edition and Addenda

ASME OM Code 2012 Edition

3) Applicable Code Requirement

ISTC-3630, Leakage Rate for Other Containment Isolation Valves. Category A valves with a leakage requirement not based on an Owner's 10 CFR 50, Appendix J program, shall be tested to verify their seat leakages within acceptable limits. Valve closure before seat leakage testing shall be by using the valve operator with no additional closing force applied.

ISTC-3630(a) Frequency. Tests shall be conducted at least once every 2 years.

MPS2 Valve Relief Request V-01 (Cont.)

4) Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and Standards", paragraph (z)(1), relief is requested from the requirement of ASME OM Code ISTC-3630(a). ISTC-3630(a) requires leakage testing of category A valves, other than containment isolation valves, on a two year frequency.

These valves are required to close or remain closed to prevent back-leakage to the RWST during the recirculation phase of a Loss of Coolant Accident (LOCA). The subject valves function as a system during the sump recirculation phase of a LOCA to prevent backflow into the RWST and limit the potential for a release of radioactivity from inside containment to the atmosphere. The RWST is vented to atmosphere. The total allowable leakage limit for this system of valves is based on the calculated site boundary dose limits and control room habitability limits. Individual leak rates of the subject valves can vary as long as the total back-leakage from the valves into the RWST is maintained less than the assumed calculated limits.

Administrative leakage limits have been calculated for each of the subject valves. See Table 1, "Measured Leakage Results for RWST Back-Leakage Valves" for a history of seat leakage results. Historical leakage rates for each of these valves, as tabulated in Table 1, indicates measured leak rates well below the administrative limits over the past several tests. The data indicates reasonable assurance that the valves will perform their intended function, and that leakage will not exceed the administrative limits from test to test. Therefore, extension of the test frequency is warranted.

5) Proposed Alternative and Basis for Use

ISTC-3630(a) requires leakage testing of category A valves, other than containment isolation valves, on a two year frequency. DENC proposes that the subject valves be exempt from the 2 year leak test frequency requirement of ISTC-3630(a) for Category A valves whose closing function prevents back-leakage to the Refueling Water Storage Tank (RWST) during post LOCA sump recirculation. DENC proposes adoption of the performance-based 10 CFR 50 Appendix J, Option B test frequencies which apply to valves whose function is also isolation of the extended containment boundary while on sump recirculation. The valves would be tested as follows:

- 2-CS-14A/B would be tested every other refueling;
- 2-CS-050 and 2-CS-051 are two parallel valves in series with 2-SI-459. 2-SI-459 would be the valve in the path normally tested every 60 months, with the ability to test 2-CS-050 and 2-CS-051 maintained as an alternative.
- The remainder of the valves would be tested every 60 months

MPS2 Valve Relief Request V-01 (Cont.)

If leakage results exceed the administrative limits for a given valve, the subject valve would be leak tested at least once every two years until two consecutive as found tests show a leakage rate below the administrative limit. After two satisfactory tests, the valve would be returned to the test frequency proposed in this relief request.

Historical leakage testing results for each of these valves show measured leakages below MPS2 administrative limits over a period of nine years. The test data supports the conclusion that it is reasonable to extend the time period between tests from prescribed limits in the ASME OM Code. Performance-based frequency of testing implemented by 10 CFR 50 Appendix J, Option B is applicable to these valves, whose function is also isolation of the extended containment boundary while on sump recirculation. Pursuant to 10 CFR 50.55a(z)(1), this proposed alternative would provide an acceptable level of quality and safety.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fifth 10-year IST interval that is scheduled to begin on December 2, 2018.

7) Precedents

This relief request was previously approved as V-001 by the NRC for a similar request in the fourth ten-year interval at MPS2 in a letter dated October 24, 2008. (TAC Nos. MD7763 through MD7771)

Valve Relief Request GVRR-3 for Nine Mile Point Nuclear Station Units 1 and 2 was approved by the NRC in a letter dated May 30, 2017. (TAC Nos. MF9073 and MF9074)

MPS2 Valve Relief Request V-01 (Cont.)

Table 1

Measured Leakage Results for RWST Back-Leakage Valves

Valve Number	Administrative Limit (gpm)	2008 (2R18) (gpm)	2009 (2R19) (gpm)	2010 (gpm)	2011 (2R20) (gpm)	2012 (2R21) (gpm)	2013 (gpm)	2014 (2R22) (gpm)	2015 (2R23) (gpm)	2016 (gpm)	2017 (2R24) (gpm)
2-CS-14A	7.0		1.0			0.57			0.6		
2-CS-14B	7.0	0.00			0.00			0.00			0.00
2-CS-050	0.01							0.001			
2-CS-051	0.001				0.000	0.000					
2-SI-459	0.02	0.014	0.001			0.001					0.001
2-SI-460	0.05				0.003					0.001	
2-SI-659	0.12	0.001				0.002		0.001			0.001
2-SI-660	0.12	0.044				0.055		0.041			0.039

Valve Relief Request V-02
Millstone Power Station Unit 2

Firewater to Auxiliary Feedwater (AFW) Pump Suction Header Manual Valve Test Frequency

Proposed Alternative
In Accordance with 10 CFR 50.55a(z)(2)

Hardship or Unusual Difficulty without a Compensating Increase in Level of Quality or Safety

1) ASME Code Component(s) Affected

Valve Number	Class	Category	Function
2-FIRE-94A	3	B	"A" AFW Pump Emergency Firewater Supply Valve
2-FIRE-94B	3	B	"B" AFW Pump Emergency Firewater Supply Valve
2-FIRE-94C	3	B	Turbine AFW Pump Emergency Firewater Supply Valve

2) Applicable Code Edition and Addenda

ASME OM Code 2012 Edition

3) Applicable Code Requirement

ISTC-3540, Manual Valves. Manual valves shall be full-stroke exercised at least once every 2 years, except where adverse conditions may require the valve to be tested more frequently to ensure operational readiness. Any increased testing frequency shall be specified by the Owner. The valve shall exhibit the required change of obturator position.

4) Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and Standards", paragraph (z)(2), relief is requested from the testing frequency requirement of ASME OM Code ISTC-3540. DENC proposes to place these valves in a sample exercise program and exercise one valve each refuel outage in lieu of a full-stroke exercise every two years. The basis of this proposed alternative is that the Code required testing results in unusual difficulty without a compensating increase in level of quality or safety.

MPS2 Valve Relief Request V-02 (Cont.)

The normally closed, 6-inch, manually operated, gate valves serve as the Firewater/AFW system boundary valves. The normally isolated firewater system provides an alternate source of water to the AFW pumps during long-term cooling in the event the normal condensate storage tank (CST) supply is depleted. An 8-inch firewater header supplies the three parallel six inch lines, one for each of the three AFW pumps, which tie directly into the normal AFW pump suction paths from the CST. There is no drain path available between the 8-inch header and the three 6-inch isolation valves.

Manual full-stroke testing is a burden since the firewater discharge flow path goes directly to the suction of the AFW pumps and cycling the valves would result in chemical and particulate contamination of the AFW system and/or CST. As a result, a spool-piece in each AFW pump suction line must be removed and the firewater routed away from the AFW system using temporary piping. This involves significant maintenance preparation and restoration activities, including temporary piping modifications, proper disposal of the chlorinated firewater, and extensive system flushing after each valve cycle to insure the AFW system does not become contaminated when restored. One motor driven AFW pump is required to be available during outages to supply emergency makeup to the Spent Fuel Pool. Cycling the three valves at each refueling would negatively impact the outage schedule and the availability of AFW pumps to support this function. There have been no identified problems from historical exercise testing of these valves during the third or fourth ten-year intervals.

5) Proposed Alternative and Basis for Use

DENC proposes testing 2-FIRE-94A/B/C on a sample frequency of one valve in the group each refueling cycle in lieu of a full-stroke exercise every two years. The basis of this proposed alternative is that the Code required testing results in unusual difficulty without a compensating increase in level of quality or safety. These valves are the same size and model from the same manufacturer, and are installed in the same application and orientation, meeting the grouping methodology allowed in NUREG 1482 for check valve testing. One valve in the group will be manually full-stroked every refueling outage, and all the valves in the group would be manually full-stroked within 3 refueling cycles. If any valve is incapable of being full-stroke exercised, the remaining valves in the group will be manually full-stroke tested in the same outage. A full-stroke exercise test will be performed after any maintenance that could affect the full-stroke capability of the valve.

Pursuant to 10 CFR 50.55a(z)(2), this proposed alternative test plan avoids unusual difficulty, lessens the unavailability of safety equipment required during outages, and is adequate to meet the fundamental objective of detecting degradation.

MPS2 Valve Relief Request V-02 (Cont.)

6) Duration of Proposed Alternative

This proposed alternative is requested for the fifth 10-year IST interval that is scheduled to begin on December 2, 2018.

7) Precedents

This relief request was previously approved as V-002 by the NRC for a similar request in the fourth ten-year IST interval at MPS2 in a letter dated October 24, 2008. (TAC Nos. MD7763 through MD7771)

Snubber Relief Request S-01
Millstone Power Station Unit 2

Use of Code Case OMN-13 Revision 2 for the Visual Examination of Snubbers

Proposed Alternative
In accordance with 10 CFR 50.55a(z)(1)

Alternative Provides an Acceptable Level of Quality and Safety

1) ASME Code Component(s) Affected

All Hydraulic and Mechanical Snubbers in scope of the IST Program

2) Applicable Code Edition and Addenda

ASME OM Code 2012 Edition

3) Applicable Code Requirement(s)

ISTD-4252(c), "The duration of examination intervals following the completion of the second refueling outage shall be in accordance with Table ISTD-4252-1".

ISTA-3130(b) states that code cases shall be applicable to the edition and addenda specified in the test plan.

4) Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and Standards", paragraph (z)(1), relief is requested from the applicability statement in Revision 2 of Code Case OMN-13 as shown in the 2012 Edition of the ASME OM Code. This request is to allow the use of ASME Code Case OMN-13, Revision 2 with the 2012 Edition of the ASME OM Code.

Code Case OMN-13, Revision 2 provides alternative rules for establishing the intervals for the visual examination of snubbers. Code Case OMN-13, Revision 2 applies to the 1995 Edition through the 2011 Addenda. DENC will implement the 2012 Edition of the ASME OM Code for the fifth 10-year IST interval.

5) Proposed Alternative and Basis for Use

By using Code Case OMN-13, Revision 2, DENC will be able to alter the visual examination intervals currently required by paragraph ISTD-4252(c) of the 2012 Edition of the ASME OM Code. ISTD-4252(c) currently requires that snubbers be visually examined in accordance with Table ISTD-4252-1 of the ASME OM Code, which states that each snubber within the scope of paragraph ISTA-1100 must be visually examined on a frequency not to exceed 48 months.

MPS2 Snubber Relief Request S-01 (Cont.)

Revision 2 of Code Case OMN-13 permits the user to extend that visual examination frequency to once each ten year interval. This permission is based on the provisions that the licensee must perform the visual examinations under the code case using the same criterion that would have been used under the Code and, in addition, the following criteria specified in the code case shall also be met:

1. Examination for indications of degradation or severe operating environments
2. Examination prior to maintenance or testing
3. Monitoring of reservoir fluid level
4. Review of Operational Readiness test data
5. Examination during disassembly
6. Transient dynamic event evaluation
7. Corrective action on unacceptable snubbers

Based on the additional criteria listed above and the provisions that the original visual examination parameters specified in the 2012 Edition of the ASME OM Code will also be met, the use of Code Case OMN-13, Revision 2, approved by the NRC in Reg. Guide 1.192, will provide at least equivalent assurance that snubbers remain visually acceptable for performing their safety functions.

This proposed alternative to the specific requirements of ISTD-4252(c) identified above will provide adequate visual indication of snubber performance and continue to provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(z)(1), DENC requests approval of this proposed alternative to the specific ISTD requirements identified in this request.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fifth 10-year IST interval that is scheduled to begin on December 2, 2018.

ATTACHMENT 3

Millstone Power Station Unit 2
Inservice Testing Program Plan – Pumps and Valves
Fifth 10-Year Interval

Revision 0

Millstone Power Station Unit 2

Inservice Testing Program
Fifth Ten-Year Interval

Code of Reference: ASME OM Code 2012 Edition

Revision 0

Commercial Service Date:

December 26, 1975

Dominion Energy Nuclear Connecticut, Inc.
Millstone Power Station Unit 2
Rope Ferry Road
Waterford, CT 06385

REVISION LOG

Effective Date	Revision Description	Prepared: IST Coordinator	Date	Approved: Engineering Manager	Date
12/02/18	Fifth Ten-Year Interval, Revision 0 Submittal to NRC. In compliance with the ASME OM Code 2012 Edition except where relief is requested.	J. Stumb			

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1.0 INTRODUCTION

1.1 Purpose

To provide requirements for the performance and administration of assessing the operational readiness of those pumps and valves whose specific functions are required to:

- Shutdown the reactor to the safe shutdown condition
- Maintain the reactor in the safe shutdown condition
- Mitigate the consequences of an accident

1.2 Scope

The program plan was prepared to meet the requirements of the following subsections of the American Society of Mechanical Engineers (ASME) OM Code 2012 Edition with no Addenda.

- Subsection ISTA, "General Requirements"

  ISTA contains the requirements directly applicable to inservice testing including the Owner's Responsibility and Records Requirements.

- Subsection ISTB, "Inservice Testing of Pumps in Light-Water Reactor Nuclear Power Plants – Pre-2000 Plants"

  ISTB establishes the requirements for inservice testing of pumps in light-water reactor nuclear power plants. The applicable pumps are those provided with an emergency power source that are required to shut down a reactor to the safe shutdown condition, to maintain the safe shutdown condition, or to mitigate the consequences of an accident.

- Subsection ISTC, "Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plants"

  ISTC establishes the requirements for inservice testing of valves in light-water reactor nuclear power plants. The applicable valves are those that provide overpressure protection and are required to perform a specific function, either actively by changing valve obturator position or passively by effectively maintaining required obturator position in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident.

- Subsection ISTD, "Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants"

  The Snubber Program Plan for MPS2 is not discussed in this Inservice Testing document and is maintained as its own separate plan.

- Mandatory Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants"

  Mandatory Appendix I provides the requirements for performance testing and monitoring of nuclear plant pressure relief devices. Methods, intervals, and record requirements for monitoring and testing are established, as well as guidelines for the evaluation of results. This appendix applies to safety valves, safety relief valves, pilot-operated pressure relief valves, power-actuated pressure relief valves, non-reclosing pressure relief devices and vacuum relief devices, including all accessories and appurtenances.

- Mandatory Appendix II, "Check Valve Condition Monitoring Program"

  Mandatory Appendix II provides an alternative to the testing or examination requirements of ISTC-3510, ISTC-3520, ISTC-3530, and ISTC-5221. The purpose of this program is both to improve valve performance and to optimize testing, examination, and preventive maintenance activities in order to maintain the continued acceptable performance of a select group of check valves. If the condition-monitoring program for a valve or valve group is discontinued, then the requirements of Subsection ISTC shall apply.

- Mandatory Appendix III, "Preservice and Inservice Testing of Active Electric Motor Operated Valve Assemblies in Light-Water Reactor Nuclear Power Plants"

  Mandatory Appendix III establishes the requirements for assessing the operational readiness of active motor-operated valves by verifying functional margin during inservice tests on specified frequencies.

- Mandatory Appendix V, "Pump Periodic Verification Test Program"

  Mandatory Appendix V provides the requirements for certain applicable pumps to meet the required differential or discharge pressure at the pump's highest design basis accident flow rate.

The Millstone Power Station Unit 2 (MPS2) fifth 10-year interval Pump and Valve Inservice Testing Plan will be in effect as follows:

Begin	**End**
December 2, 2018	December 1, 2028

This plan will be updated as required in accordance with 10 CFR 50.55a(f).

This program plan provides a complete listing of those pumps and valves included in the program per the requirements of:

- ISTA "General Requirements"
- ISTB "Inservice Testing of Pumps in Light-Water Reactor Nuclear Power Plants"
- ISTC "Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plants"
- Mandatory Appendix I, *"Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants"*
- Mandatory Appendix II, *"Check Valve Condition Monitoring Program"*
- Mandatory Appendix III, *"Preservice and Inservice Testing of Active Electric Motor Operated Valve Assemblies in Light-Water Reactor Nuclear Power Plants"*
- Mandatory Appendix V, *"Pump Periodic Verification Test Program"*

The key features of this Plan are: the Pump and Valve table listings, Relief Requests, Alternative Test Justifications, and Technical Positions. The MPS2 Inservice Testing basis document includes the justification for inclusion of components in the scope of IST and also the justifications for exclusion from the program. Administrative procedures, surveillance testing procedures, and other records required to define and execute the IST Program are retained and available at the station.

2.0 INSERVICE TESTING PLAN FOR PUMPS

2.1 Pump Inservice Testing Plan Description

This program plan meets the requirements of ASME OM Code Subsections ISTA, ISTB, and Mandatory Appendix V with the exception of specific relief requests contained in Attachment 4.3.

2.2 Pump Plan Table Description

The pumps included in the MPS2 IST Plan are listed in Attachment 4.10. The information contained in these tables identifies those pumps to be tested to the requirements of the ASME OM Code, the testing parameters and frequencies, and associated relief requests. The headings for the pump tables are delineated below.

Pump Description — Descriptive name of the pump.

Pump No. — Unique pump identification number.

Drawing No. / COOR. — Piping and Instrumentation Drawing (Flow Diagram) on which the pump is represented along with the P&ID Coordinate location.

Class — ASME Code classification of the pump.

1	Class 1
2	Class 2
3	Class 3

Pump Type — Pump type.

C-H	Centrifugal Horizontal
VLS	Vertical Line Shaft Centrifugal
PD	Positive Displacement

Pump Driver — Pump driver type.

MTR	Motor driven
TURB	Steam turbine driven
ENG	Engine Driven

Category — Pump category as defined in ISTB-2000.

A	Continuous or routinely operated pumps
B	Standby pumps not operated routinely except for testing

Test Type — Measured pump test parameters.

DP	Differential Pressure
N	Speed
Q	Flow Rate
V	Vibration
PD	Positive Discharge, Pressure

C – Denotes a Comprehensive Pump Test

Test Freq. — Frequencies for performing the specified inservice test:

3M	Quarterly (92 Days)
24M	Biennially (2 Years)
CS	Cold Shutdown
RR	Refueling Outage

Relief Request — A relief request number is listed when a specific code requirement is determined to be impracticable. Attachment 4.2 contains an index of the relief requests included in Attachment 4.3. Relief Requests are prefixed with "P" in the Notes column of the pump tables.

Tech. Position — A technical position number is listed when the requirements of the code are not easily interpreted and clarifying information is needed. The technical position is used to document how Code requirements are being implemented at the station. Technical Positions are prefixed with "TP" and listed next to the applicable pump in the Notes column of the pump tables where applicable. Attachment 4.8 contains an index of the Station Technical Positions included in Attachment 4.9.

3.0 INSERVICE TESTING PLAN FOR VALVES

3.1 Valve Inservice Testing Plan Description

This plan establishes the test intervals and parameters to be measured to meet the requirements of ASME OM Code Subsections ISTA, ISTC, Mandatory Appendix I, Mandatory Appendix II, and Mandatory Appendix III with the exception of the specific relief requests contained in Attachment 4.5.

Where the frequency requirements for valve testing have been determined to be impracticable, Alternate Test Justifications have been identified and written. These justifications are provided in Attachment 4.7.

3.2 Valve Plan Table Description

The valves included in the MPS2 IST Plan are listed in Attachment 4.11. The information contained in these tables identify those valves that are required to be tested to the requirements of ISTC and Appendix I, the test parameters, frequency of testing, and the associated relief requests. The headings for the valve tables are delineated below.

Valve Description	Descriptive name of the valve
Valve No.	A unique identifier for the valve
Drawing No./COOR.	Piping and Instrumentation Drawing (Flow Diagram) on which the valve is represented and the coordinate location
Program	Standard or Augmented IST Program component
Type	The valve body style abbreviation.

AN	Angle
BF	Butterfly
BA	Ball
CK	Check
DIA	Diaphragm
GA	Gate
GL	Globe
PLG	Plug
RV	Relief
SV	Safety

Actuator — The valve actuator type abbreviation.

AO	Air Operated
HO	Hydraulic Operated
MA	Manually Operated
MO	Motor Operated
MOL	Motor Operated – Low Risk
SA	Self Actuated
SO	Solenoid Operated

Size — The nominal pipe size of the valve, in inches.

Class — The Code Class abbreviations per RG 1.26.

1	Class 1
2	Class 2
3	Class 3
NA	Non-Code Class

Category. — The ASME OM Code category (or categories) as defined in ISTC-1300.

A	Seat Leakage Limited.
B	Seat Leakage Not Required.
C	Self-Actuating Valves.
D	Single Use Valves.
AC	Both Categories A and C.
BC	Both Categories B and C.
N/A	Not Applicable

ACT/PASS — Active or Passive function determination for the valve in accordance with ISTC-2000.

A	Active
P	Passive

NP — The Normal Position abbreviation. This refers to the valve's position during normal power operation. If the system does not operate during power operation, then the normal position is the position of the valve when the system is not operating.

C	Closed
LC	Locked Closed
LO	Locked Open
LT	Locked Throttled
O	Open
O/C	Open or Closed
SYS	System Condition Dependent

SP

The Safety Position(s) for the valve required to perform its function. For valves that perform safety functions in the open and closed positions more than one safety function position may be specified.

C	Closed
NA	Not Applicable
O	Open
O/C	Open and Closed

FP

The abbreviation for Fail Position.

C	Closed
FAI	Fails As Is
NA	Not Applicable
O	Open

Test

The test type abbreviation.

CVC	Check Valve Test Closed
CVO	Check Valve Test Open
DIAG	MOV Diagnostic Test
FCE	Full Cycle Exercise – full stroke of the valve from and back to its initial position
FSC	Fail-Safe Test Closed
FSO	Fail-Safe Test Open
LT	Category A Seat Leakage Test
LTJ	Appendix J Leak Test
PIT	Position Indication Test
RD	Rupture Disk Test
SKID	Skid Mounted Test
SP	Set Pressure Relief Valve Test
STC	Full-Stroke Exercise with Stroke Time Closed
STO	Full-Stroke Exercise with Stroke Time Open

Test Freq. — The required test frequency abbreviation.

3M	Quarterly
6M	Every 6 Months
24M	Every 2 Years
CM	Condition Monitoring
CS	Cold Shutdown
III	Per Mandatory Appendix III
J	Per Appendix J Program
OR	Every Other Refueling Outage
RR	Refueling Outage
NPO	Normal Plant Operation
SK	Skid-Mounted Component
60M	Every 5 Years
120M	Every 10 Years

Notes — The Notes section will provide information for a components test where an alternate frequency is established as allowed by the Code, or by an approved relief request. This area may also have other references such as a Technical Position.

RR — A Relief Request number is listed when a specific code requirement is determined to be impracticable. Attachment 4.4 contains an index of the valve relief requests included in Attachment 4.5 and that are prefixed with a "V".

ATJ — This lists the applicable Alternate Test Justification. This section refers to Cold Shutdown Justifications, Refueling Outage Justifications, and justifications for any other test frequencies that differ from the ASME OM Code required testing frequency. Attachment 4.6 contains an index of the Alternate Test Justifications included in Attachment 4.7.

TP — A Technical Position number is listed when the requirements of the code are not easily interpreted or clarifying information is needed. The technical position is used to document how Code requirements are being implemented at the station. Technical Positions are prefixed with "TP". Attachment 4.8 contains an index of the Station Technical Positions included in Attachment 4.9.

4.0 ATTACHMENTS:

Attachment 4.1 System and P&ID Listing

Attachment 4.2 Pump Relief Request Index

Attachment 4.3 Pump Relief Requests

Attachment 4.4 Valve Relief Request Index

Attachment 4.5 Valve Relief Requests

Attachment 4.6 Alternate Test Justification Index

Attachment 4.7 Alternate Test Justifications

Attachment 4.8 Station Technical Position Index

Attachment 4.9 Station Technical Positions

Attachment 4.10 Inservice Testing Pump Table

Attachment 4.11 Inservice Testing Valve Table

ATTACHMENT 4.1

SYSTEM AND P&ID LISTING			
System Number	**System Abbreviation**	**System Description**	**P&ID**
2301	RCS	Reactor Coolant & Vessel	26014-1
2301	RCS	Reactor Coolant & Vessel	26014-2
2304A	CVC	Charging (Volume Control)	26017-1
2304B	PUR	Charging (Letdown)	26017-2
2304C	BAS	Boric Acid	26017-3
2304A	CVC	Charging (Volume Control)	26031-1
2305	SFC	Spent Fuel Pool Cooling & Purification	26023-1
2305	SFC	Spent Fuel Pool Cooling & Purification	26023-2
2306	SIT	Safety Injection Tanks	26015-3
2307	LPI	Low Pressure Safety Injection	26015-1
2307	LPI	Low Pressure Safety Injection	26015-2
2308	HPI	High Pressure Safety Injection	26015-1
2308	HPI	High Pressure Safety Injection	26015-2
2308	HPI	High Pressure Safety Injection	26015-3
2309	CSS	Containment Spray	26015-1
2309	CSS	Containment Spray	26015-2
2309	CSS	Containment Spray	26015-3
2310	SCC	Shutdown Cooling	26015-1
2310	SCC	Shutdown Cooling	26015-3
2314B	CEB	Containment & Enclosure Building Purge	26028-1
2314B	CEB	Containment & Enclosure Building Purge	26028-2
2316	MNS	Main Steam	26002-1
2316	MNS	Main Steam	26002-2
2321	FWS	Feedwater Sys	26005-2
2322	AFW	Auxiliary Feedwater	26005-2
2322	AFW	Auxiliary Feedwater	26005-3
2322	AFW	Auxiliary Feedwater	26011-1
2326A	SWS	Service Water	26008-2
2326A	SWS	Service Water	26008-3
2330A	CCR	Reactor Building Closed Cooling Water	26022-1
2330A	CCR	Reactor Building Closed Cooling Water	26022-2
2330A	CCR	Reactor Building Closed Cooling Water	26022-3
2330A	CCR	Reactor Building Closed Cooling Water	26022-4
2330A	CCR	Reactor Building Closed Cooling Water	26022-5
2330A	CCR	Reactor Building Closed Cooling Water	26022-6
2330C	CWD	Chilled Water	26027-2
2346A	DGN	Diesel Generator	26018-5

SYSTEM AND P&ID LISTING

System Number	System Abbreviation	System Description	P&ID
2350	RSS	Refueling Water Storage Tank	26015-2
2360	XXX	Containment Isolation Valves	26009-10
2360	XXX	Containment Isolation Valves	26020-5
2360	XXX	Containment Isolation Valves	26021-2
2360	XXX	Containment Isolation Valves	26024-1
2360	XXX	Containment Isolation Valves	26024-2
2360	XXX	Containment Isolation Valves	26028-3
2361	XXX	Instrument Air Accumulator Check Valves	26009-5
2361	XXX	Instrument Air Accumulator Check Valves	26009-6
2361	XXX	Instrument Air Accumulator Check Valves	26009-8

ATTACHMENT 4.2

PUMP RELIEF REQUEST INDEX

Relief Request No.	Description	NRC Approval Date
P-01	Categorization of LPSI Pumps as Group A/B	TBD
P-02	Smooth Running Pumps	TBD

ATTACHMENT 4.3

MPS2 PUMP RELIEF REQUESTS

Pump Relief Request(s) will be inserted into the Unit 2 Program Plan upon approval from the NRC

ATTACHMENT 4.4

MPS2 VALVE RELIEF REQUEST INDEX

Relief Request No.	Description	NRC Approval Date
V-01	RWST Back-leakage Valves Leakage Test Frequency	TBD
V-02	Firewater to AFW Pump Suction Header Manual Valve Test Frequency	TBD

ATTACHMENT 4.5

MPS2 VALVE RELIEF REQUESTS

Valve Relief Request(s) will be inserted into the Unit 2 Program Plan upon approval from the NRC

ATTACHMENT 4.6

ALTERNATE TEST JUSTIFICATION (ATJ) INDEX	
ATJ No.	**Description**
ATJ-01	High Pressure Safety Injection (HPSI) Pump Discharge Check Valve
ATJ-02	Boric Acid Check Valve
ATJ-03	Main Steam Isolation Valve
ATJ-04	Charging Header Supply Valve
ATJ-05	Low Pressure Safety Injection (LPSI)Header Loop Check Valve
ATJ-06	Shutdown Cooling Suction Header Isolation Valve
ATJ-07	Engineered Safeguards Features (ESF) Pumps Min Flow Recirculation Header Isolation Valve
ATJ-08	Safety Injection System To Loop Non-Return Check Valve
ATJ-09	Auxiliary Feedwater Pump Discharge Check Valve
ATJ-10	Steam Generator Auxiliary Feedwater Supply Air-Assist Check Valve
ATJ-11	Reactor Building Closed Cooling Water (RBCCW) Header Containment Valve
ATJ-12	Reactor Coolant Pumps Bleedoff Control Valve Assembly
ATJ-13	Letdown Header Safety Injection Actuation Signal (SIAS) Isolation Valve
ATJ-14	Auxiliary Spray Charging Header Supply Valve
ATJ-15	Reactor Head Vent Solenoid Valve
ATJ-16	Shutdown Cooling Suction Header Containment Isolation Valve
ATJ-17	Loop Non-Return Check Leakoff Drain Stop Valve
ATJ-18	Auxiliary Feedwater Turbine Supply Check Valve
ATJ-19	Loop Charging Header Non-Return Check Valve
ATJ-20	Charging Pumps Refueling Water Storage Tank (RWST) Suction Check Valve
ATJ-21	Letdown Header Outside Containment Isolation Valve
ATJ-22	RWST Outlet Header Check Valve
ATJ-23	HPSI Header Check Valve
ATJ-24	Containment Purge Supply Containment Isolation Valve
ATJ-25	LPSI Pump Discharge Check Valve
ATJ-26	Letdown Heat Exchanger Outlet Temperature Control Valve
ATJ-27	Pressurizer Power Operated Relief Valve (PORV)
ATJ-28	Hydrogen Purge Isolation Control Valve
ATJ-29	Bonnet Expansion Volume Check Valve
ATJ-30	Safety Injection Tank Vent To Containment Valve
ATJ-31	Aux Feedwater Pump Discharge Header Cross-Tie Valve

ALTERNATE TEST JUSTIFICATION (ATJ) INDEX	
ATJ No.	**Description**
ATJ-32	Steam Generator Atmospheric Dump Control Valve
ATJ-33	Containment Sump Outlet Header Isolation
ATJ-34	RBCCW Pump Discharge Check Valve
ATJ-35	HPSI Header Injection Valve
ATJ-36	Station Air Check Valve to Containment Air Monitoring System
ATJ-37	Containment Structure Instrument Air Control Valve
ATJ-38	A, B, C RBCCW Heat Exchanger Outlet Temp. Control Valve
ATJ-39	Pressurizer PORV Block Valves

ATTACHMENT 4.7

ALTERNATE TEST JUSTIFICATIONS

Alternate Test Justification ATJ-01

ASME Code Component(s) Affected

2-SI-405
2-SI-414
2-SI-427

Category C

Class 2

Safety Function

These valves must open to provide a flow path from the discharge of the High Pressure Safety Injection (HPSI) pump to the Reactor Coolant System (RCS). These valves must close to prevent backflow through an idle HPSI pump.

Justification

These valves cannot be full-stroke exercised (open) during reactor operation since the only flow path is into the reactor Coolant System. HPSI pumps do not have sufficient discharge pressure to overcome RCS pressure. Valves cannot be full-stroke exercised during cold shutdown since full HPSI flow into the RCS could result in overpressurization.

Memorandum DE2-95-1023 indicates that the system requirements needed to verify that the valve obturator travels to the closed position cannot be met without exceeding the design bases limits for the Emergency Diesel Generator. Thus, for the multi-hour period when this alignment exists in support of testing, should a Loss of Coolant Accident and coincident Loss of Normal Power occur, the diesel would be overloaded and generator terminal voltage would drop below design basis levels. While unlikely, this potential loss of one complete facility is an unacceptable risk.

ISTC permits deferral of full-stroke testing to refueling if full-stroke testing during reactor operation or cold shutdown is impractical.

Alternative Frequency

These valves will be full-stroke open and closure tested during refueling outages per ISTC-3522(c).

Alternate Test Justification ATJ-02

ASME Code Component(s) Affected

2-CH-177
2-CH-190

Category C

Class 2

Safety Function

These valves must open to provide a flow path from the boric acid pumps to the suction of the charging pumps. These valves must close to prevent reverse flow through the boric acid system from the suction of the charging pumps.

Justification

Operation of these valves during normal plant operation would allow concentrated boric acid to flow directly to the charging pump suction header resulting in a rapid, uncontrolled reduction in reactor power. These valves cannot be full-stroke tested during cold shutdown because of Low Temperature Overpressure Protection Technical Specification restrictions (Technical Specification Amendment 218).

Alternative Frequency

These valves will be full-stroke open and closure tested during refueling outages per ISTC-3522(c).

Alternate Test Justification ATJ-03

ASME Code Component(s) Affected

2-MS-64A
2-MS-64B

Category BC

Class 2

Safety Function

These valves must close to prevent blowdown of steam following a Main Steam Line Break and to isolate containment from the main steam system.

Justification

These valves cannot be full-stroked at power. Closure of these valves during unit operation would result in a reactor trip. Full-stroke testing of these valves requires plant shutdown.

A part-stroke test performed at power is impractical and is no longer required by Technical Specifications Amendment 219. As quoted in NUREG 1482, Section 4.2.4: "MSIV's should not be tested at power, since even a part-stroke exercise increases the risk of a valve closure when the unit is generating power."

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-04

ASME Code Component(s) Affected

2-CH-518
2-CH-519

Category A

Class 1

Safety Function

These valves must open to supply borated water from the charging pumps to the Reactor Coolant System (RCS). These valves must close to provide containment isolation for penetration 3. These valves must also close to establish an alternate borated water flowpath through the pressurizer auxiliary spray line.

Justification

Closing 2-CH-518 or 2-CH-519 prevents the Chemical and Volume Control System from being able to fulfill its Small Break Loss of Coolant Accident (SBLOCA) function for a SBLOCA in the piping not affected by the valve closure. Thus, closing 2-CH-518 or 2-CH-519 during reactor operation would place the unit in an unanalyzed condition, require entry into Technical Specification 3.0.3, and require unit shutdown within one hour.

Alternative Frequency

These valves will be stroke time open, stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-05

ASME Code Component(s) Affected

2-SI-114	2-SI-134
2-SI-124	2-SI-144

Category C

Class 2

Safety Function

These valves must open to provide a flow path from the Safety Injection System to its associated Reactor Coolant System (RCS) cold leg. These valves must close to prevent overpressurization of the Low Pressure Safety Injection (LPSI) piping.

Justification

These valves cannot be full-stroke or part-stroke exercised open using the normal injection path during reactor operations since the LPSI pumps cannot overcome Safety Injection Tank pressure downstream of the 2-SI-706 (series) valves. Verifying close function during reactor operation or cold shutdown would expose the LPSI system to potential overpressurization.

According to NUREG-1482, Revision 2, Section 4.1.2, the NRC staff determined that non-intrusive techniques meet the Code requirements for verifying disk movement for full-stroke exercising – opening and closing – of check valves. The non-intrusive verification allows flow testing at repeatable conditions to be performed on the valves in a group while requiring non-intrusive tests of only one of the group on a rotating basis.

This discussion of the sampling scheme was omitted from NUREG-1482, Section 4.1.2, Revision 1. However, the conclusion in NUREG-1482, Revision 0, that flow testing of all the valves in the group at repeatable conditions while monitoring one valve on a rotating basis meets the requirements of the Code, is still valid because the technical basis for the sampling plan meeting Code requirements has not changed.

Alternative Frequency

These valves will be full-stroke open tested during cold shutdown per ISTC-3522(b). These valves will be full-stroke closure tested using non-intrusive methods in a sampling plan during refueling outages per ISTC-3522(c).

Alternate Test Justification ATJ-06

ASME Code Component(s) Affected

2-SI-652

Category B

Class 1

Safety Function

This valve must open to provide a flow path for the initiation of boron precipitation control following a Loss of Coolant Accident. This valve must also open to provide a flow path for the initiation of Shutdown Cooling. This valve must close to isolate the Shutdown Cooling system from the Reactor Coolant System (RCS) and provide reactor coolant pressure boundary.

Justification

This valve is locked closed when the RCS pressure exceeds 300 psig to protect the low pressure Shutdown Cooling piping. Valve exercise would require violation of plant interlocks.

Alternative Frequency

This valve will be full-cycle exercised during cold shutdown per III-3610.

Alternate Test Justification ATJ-07

ASME Code Component(s) Affected

2-SI-659
2-SI-660

Category A

Class 2

Safety Function

These valves must open to provide a flow path for minimum flow recirculation for the Containment Spray pumps, the Low Pressure Safety Injection (LPSI) pumps, and the High Pressure Safety Injection (HPSI) pumps. These valves must close following a Containment Sump Recirculation Actuation Signal (SRAS) to prevent transfer of containment sump water to the Refueling Water Storage Tank (RWST).

Justification

These valves are required to be locked open with valve operator power removed to assure recirculation flow path during reactor operation.

Alternative Frequency

These valves will be stroke time open, stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-08

ASME Code Component(s) Affected

2-SI-706A	2-SI-706C
2-SI-706B	2-SI-706D

Category C

Class 1

Safety Function

These valves must open to provide a flow path for the Low Pressure Safety Injection (LPSI) and High Pressure Safety Injection (HPSI) to the Reactor Coolant System (RCS). These valves must close to ensure Safety Injection Tank (SIT) inventory is directed to the RCS. These valves must also close to provide a reactor coolant pressure boundary. These valves must also close if required to isolate containment from the associated safety injection cold leg injection line.

Justification

These valves cannot be full-stroke exercised during reactor operation because the only full flow path is into the RCS. There are no pumps capable of providing design flow into the RCS during reactor operation. Further, injecting cold water directly into the RCS would cause undue thermal stresses.

According to NUREG-1482, Revision 0, Section 4.1.2, the NRC staff determined that non-intrusive techniques meet the Code requirements for verifying disk movement for full-stroke exercising – opening and closing – of check valves. The non-intrusive verification allows flow testing at repeatable conditions to be performed on all valves in a group while requiring non-intrusive tests of only one of the group on a rotating basis.

This discussion of the sampling scheme was omitted from NUREG-1482, Section 4.1.2, Revision 2. However, the conclusion in NUREG-1482, Revision 0, that flow testing all the valves in the group at repeatable conditions while monitoring one valve on a rotating basis meets the requirements of the Code, is still valid because the technical basis for the sampling plan meeting Code requirements has not changed.

Alternative Frequency

These valves will be full-stroke open tested during cold shutdown per ISTC-3522(b). These valves will be full-stroke closure tested using non-intrusive methods in a sampling plan during refueling outages per ISTC-3522(c).

Alternate Test Justification ATJ-09

ASME Code Component(s) Affected

2-FW-7
2-FW-8A
2-FW-8B

Category C

Class 3

Safety Function

These valves must open to provide a flow path for auxiliary feedwater flow to the steam generators from the Auxiliary Feedwater Pumps. These valves must close to prevent diversion of auxiliary feedwater pump flow back through its associated pump.

Justification

Valve exercise would require establishing flow through the auxiliary feed piping to the steam generator. Introduction of this cold water during plant operation could result in steam generator level instability and/or undesirable thermal transients to the feed nozzles.

Alternative Frequency

These valves will be full-stroke open and closure tested during cold shutdown per ISTC-3522(b).

Alternate Test Justification ATJ-10

ASME Code Component(s) Affected

2-FW-12A
2-FW-12B

Category C

Class 2

Safety Function

These valves must open to allow auxiliary feedwater supply to the steam generators through the main feedwater supply lines. These valves must close to provide containment isolation, and to isolate auxiliary feedwater in the event of an upstream pipe break.

Justification

Valve operator exercise without auxiliary feedwater flow will not result in obturator exercise. Valve actuator is not connected to obturator. Valve has no part stroke capability.

Valve obturator exercise would require establishing flow through the auxiliary feed piping to the steam generator. Introduction of this cold water during plant operation could result in steam generator level instability and/or undesirable thermal transients to the feed nozzles.

Alternative Frequency

These valves will be full-stroke open and closure tested during cold shutdown per ISTC-3522(b).

Alternate Test Justification ATJ-11

ASME Code Component(s) Affected

2-RB-30.1A
2-RB-30.1B
2-RB-37.2A
2-RB-37.2B

Category A

Class 2

Safety Function

These valves must close to isolate containment from the Reactor Vessel Support Concrete Cooling Coils and Reactor Coolant Pump (RCP) Oil Cooler lines.

Justification

Exercising these valves would result in interrupting cooling water flow to the RCP thermal barriers and oil coolers as well as other loads required during reactor operation.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdown per III-3610.

Alternate Test Justification ATJ-12

ASME Code Component(s) Affected

2-CH-198
2-CH-505
2-CH-506

Category A

Class 2

Safety Function

These valves must close to isolate containment from the reactor coolant pump (RCP) bleedoff line.

Justification

These valves are required to be open any time the reactor coolant pumps are operating. Closing these valves could cause seal damage or failure.

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-13

ASME Code Component(s) Affected

2-CH-515
2-CH-516

Category A

Class 2

Safety Function

These valves must close to isolate containment from the Reactor Coolant System Letdown line.

Justification

Operation of these valves during plant operation would cause undesirable thermal transients of approximately 400 degrees on the Regenerative Heat Exchanger. This component has a limited number of design thermal transients. Valve actuator design precludes part-stroke testing.

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-14

ASME Code Component(s) Affected

2-CH-517

Category A

Class 1

Safety Function

This valve must open to provide a flow path from the High Pressure Safety Injection (HPSI) pump(s) into the Reactor Coolant System (RCS) hot leg, via the pressurizer. This valve must close to isolate containment from the Auxiliary Spray Charging Header.

Justification

Exercising this valve during reactor operation could cause loss of RCS pressure control with consequent unplanned shutdown and/or excessive thermal transient on the pressurizer spray piping.

Alternative Frequency

This valve will be stroke time open, stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-15

ASME Code Component(s) Affected

2-RC-414
2-RC-415
2-RC-416
2-RC-417

Category B

Class 1

Safety Function

These valves must open to provide an emergency vent path for the Reactor Coolant System (RCS). These valves must close to provide a RCS pressure boundary.

Justification

These valves are designed for emergency use only. Testing of these valves during operation could result in a loss-of-coolant accident.

Alternative Frequency

These valves will be stroke time open, stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-16

ASME Code Component(s) Affected

2-SI-651

Category A

Class 1

Safety Function

This valve must open to provide a flow path for the initiation of boron precipitation control following a Loss of Coolant Accident. This valve must also open to provide a flow path for the initiation of Shutdown Cooling. This valve must close to isolate the Shutdown Cooling system from the Reactor Coolant System (RCS) and provide reactor coolant pressure boundary. This valve must also close to isolate containment from the Low Pressure Safety Injection (LPSI) system.

Justification

This valve is locked closed when RCS pressure exceeds 300 psig to protect the low pressure shutdown cooling system piping. This valve exercise would require violation of plant interlocks.

Alternative Frequency

This valve will be full-cycle exercised during cold shutdown per III-3610.

Alternate Test Justification ATJ-17

ASME Code Component(s) Affected

2-SI-618
2-SI-628
2-SI-638
2-SI-648

Category B

Class 1

Safety Function

These valves must close to provide system pressure boundary integrity for the Safety Injection cold leg injection header.

Justification

These valves are inaccessible for observation during reactor operation.

Alternative Frequency

These valves will be failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-18

ASME Code Component(s) Affected

2-MS-4A
2-MS-4B

Category C

Class 3

Safety Function

These valves must open to provide a flow path from the steam generator to the turbine driven auxiliary feedwater pump. These valves must close to prevent reverse flow of steam from an intact steam generator.

Justification

There is no flow path available during reactor operation which will assure the valve passes full design flow. Operation of the turbine driven auxiliary feedwater pump at design flow conditions would cause thermal shock to the feed water piping, result in steam generator level control instability, and possible reactor trip.

Alternative Frequency

These valves will be full-stroke open and closure tested during cold shutdown per ISTC-3522(b).

Alternate Test Justification ATJ-19

ASME Code Component(s) Affected

2-CH-432
2-CH-433

Category C

Class 1

Safety Function

These valves must open to provide a flow path from the Charging System to the Reactor Coolant System (RCS). These valves must close to provide a RCS pressure boundary isolation.

Justification

Alternate Test Justification 04 identifies that 2-CH-518 and 2-CH-519 cannot be stroked closed during reactor operation. Since 2-CH-518 and 2-CH-519 cannot be closed during reactor operation, charging header check valves 2-CH-432 and 2-CH-433 cannot be verified open or closed. The valves are in parallel flow paths. Without closure of 2-CH-518 and 2-CH-519 there is no method to verify which valve is passing the indicated flowrate for the open verification, or back leakage for the closure test.

Alternative Frequency

These valves will be full-stroke open and closure tested during cold shutdown per ISTC-3522(b).

Alternate Test Justification ATJ-20

ASME Code Component(s) Affected

2-CH-191

Category C

Class 2

Safety Function

This valve must open to provide a flow path from the Refueling Water Storage Tank (RWST) to the charging pump suction. This valve must close to prevent backflow from the charging pump suction header to the RWST.

Justification

Full-stroke testing is impractical during reactor operation. Full-stroke operation of this valve during plant operation could allow high concentration boric acid from the RWST to flow directly to the charging pump suction resulting in a rapid reduction of reactor power or, if blended makeup were used, cause significant instabilities in reactor power. The valve can be part-stroke exercised during scheduled downpower operations and cold shutdowns. The valve cannot be full-stroke exercised during cold shutdown because of Technical Specification Low Temperature Overpressure protection limits on charging pump operation (Technical Specification Amendment 218).

Alternative Frequency

This valve will be full-stroke open and closure tested during refueling outages per ISTC-3522(c).

Alternate Test Justification ATJ-21

ASME Code Component(s) Affected

2-CH-089

Category A

Class 2

Safety Function

This valve must close to isolate containment from the letdown header.

Justification

Operation of this valve during plant operation would cause undesirable thermal transients on the regenerative heat exchanger. This component has a limited number of design thermal transients.

Alternative Frequency

This valve will be stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-22

ASME Code Component(s) Affected

2-CS-14A
2-CS-14B

Category A

Class 2

Safety Function

These valves must open to provide a flow path from the Refueling Water Storage Tank to the Emergency Core Cooling System (ECCS) pumps. These valves must close to isolate the Refueling Water Storage Tank from the ECCS pumps upon initiation of sump recirculation.

Justification

These valves cannot be full-stroke exercised during reactor operation because the only full flow path is into the Reactor Coolant System. There are no pumps capable of providing design flow during reactor operation. This valve cannot be full-stroke exercised during cold shutdown since Reactor Coolant System overpressurization could result.

Alternative Frequency

One of these valves will be disassembled and inspected each refueling outage per ISTC-5221(c).

Alternate Test Justification ATJ-23

ASME Code Component(s) Affected

2-SI-009	2-SI-010	2-SI-011	2-SI-133
2-SI-012	2-SI-113	2-SI-123	2-SI-143

Category C

Class 2

Safety Function

These valves must open to provide a flow path from the discharge of the High Pressures Safety Injection (HPSI) pumps to the Reactor Coolant System (RCS) during the injection and recirculation modes of Emergency Core Cooling System (ECCS) operation. These valves must close to prevent diversion of injection flow through an out-of-service High Pressure Safety Injection System injection line.

Justification

These valves cannot be full-stroke exercised during reactor operation since the only full flow path is into the RCS. HPSI pumps do not have sufficient discharge pressure (1200 psig) to overcome RCS pressure (2250 psia). These valves cannot be full-stroke exercised during cold shutdown since full HPSI flow into the RCS could result in overpressurization.

According to NUREG-1482, Revision 0, Section 4.1.2, the NRC staff determined that non-intrusive techniques meet the Code requirements for verifying disk movement for full-stroke exercising – opening and closing – of check valves. The non-intrusive verification allows flow testing at repeatable conditions to be performed on all valves in a group while requiring non-intrusive tests of only one of the group on a rotating basis.

This discussion of the sampling scheme was omitted from NUREG-1482, Section 4.1.2, Revision 2. However, the conclusion in NUREG-1482, Revision 0, that flow testing of all the valves in the group at repeatable conditions while monitoring one valve on a rotating basis meets the requirements of the Code, is still valid because the technical basis for the sampling plan meeting Code requirements has not changed.

Alternative Frequency

These valves will be full-stroke open tested during refueling outages per ISTC-3522(c). These valves will be full-stroke closure tested using non-intrusive methods during refueling outages per ISTC-3522(c).

Alternate Test Justification ATJ-24

ASME Code Component(s) Affected

2-AC-4
2-AC-5
2-AC-6
2-AC-7

Category A

Class 2

Safety Function

These valves must close to isolate containment from the Containment Building ventilation system.

Justification

These valves are locked closed during Modes 1 through 4. They cannot be operated except in Modes 5 and 6. The credited valve function per the Alternate Source Term option is to be closed within 30 minutes of a fuel handling accident. They have no safety function in Mode 5, and are tested prior to starting refueling operations.

Alternative Frequency

These valves will be stroke time closure and failure tested during refueling outages per ISTC-3521(e).

Alternate Test Justification ATJ-25

ASME Code Component(s) Affected

2-SI-434
2-SI-446

Category C

Class 2

Safety Function

These valves must open to provide a flow path for its associated Low Pressure Safety Injection (LPSI) pump flow to the Reactor Coolant System (RCS) cold legs. These valves must close to prevent the diversion of LPSI flow through an idle LPSI pump.

Justification

Valves cannot be tested during reactor operation since there is no practical method for establishing significant flow rates. Use of the 6 inch Containment Spray and Safety Injection test line would require declaring both LPSI pumps and one train of Containment Spray inoperable during the testing. Declaring two LPSI pumps inoperable places the unit in an unanalyzed condition requiring shutdown within one hour.

Alternative Frequency

These valves will be full-stroke open and closure tested during cold shutdown per ISTC-3522(b).

Alternate Test Justification ATJ-26

ASME Code Component(s) Affected

2-RB-402

Category B

Class 3

Safety Function

This valve must close to isolate Reactor Building Closed Cooling Water (RBCCW) flow to the Letdown Heat Exchanger.

Justification

Testing of this valve during plant operation would cause undesirable thermal transients on the regenerative heat exchanger since charging flow would have to be stopped during the test. The regenerative heat exchanger has a limited number of design thermal transients. Further, reactivity control would be jeopardized by the loss of charging flow and the valve realignment required to perform the test.

Alternative Frequency

This valve will be stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-27

ASME Code Component(s) Affected

2-RC-402
2-RC-404

Category B

Class 1

Safety Function

These valves must open to provide over pressure protection to the Reactor Coolant System.

Justification

Per GL 90-06, power operated relief valves (PORVs) should not be tested during plant operation, but recommends that in addition to 4.0.5 requirements, an exercise test be performed under conditions of Mode 3 or 4. This will be accomplished under the full-stroke open test at cold shutdown frequency.

To measure stroke time and obtain solenoid operated valve diagnostic data, temporary test equipment is installed to record current traces from the solenoid coil and position indication switches. These valves are located inside containment within the pressurizer block house. The test equipment is operated by specialists who are not part of the operations shift complement, and may not be available to support testing during unplanned shutdowns. It is not practical to install test equipment during each cold shutdown to obtain stroke time data. Refueling frequency stroke time testing is warranted and specifically allowed by GL 90-06.

Alternative Frequency

These valves will be stroke time opened and closed during refueling outages per ISTC-3521(e).

Alternate Test Justification ATJ-28

ASME Code Component(s) Affected

2-EB-91
2-EB-100

Category A

Class 2

Safety Function

These valves must open to provide a flow path for hydrogen purge of containment following a Loss of Coolant Accident (LOCA). These valves must close to isolate containment from the Hydrogen Purge System.

Justification

These valves are not accessible during reactor operation. Failure Mode test requires access to the valves to remove instrument air pressure.

Alternative Frequency

These valves will be failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-29

ASME Code Component(s) Affected

2-CS-140
2-CS-141

Category C

Class 2

Safety Function

These valves must open to provide a flow path from the bonnet of the containment sump outlet isolation valve to the pressure locking thermal binding expansion volume. These valves must close to prevent gas leakage from the pressure locking thermal binding expansion volume to the Emergency Core Cooling System.

Justification

The only practical method of verifying valve full stroke is a system leakage test. Performance of the system leakage test during operation or during cold shutdown is not practical since setting up test equipment and performing the test would unduly complicate the conduct of cold shutdown operations. (NUREG 1482, section 4.1.6 recognizes that set up and performance of the leakage testing may be impractical during cold shutdown and power operations).

Alternative Frequency

These valves will be full-stroke open and closure tested during refueling outages per ISTC-3522(c).

Alternate Test Justification ATJ-30

ASME Code Component(s) Affected

2-SI-613
2-SI-623
2-SI-633
2-SI-643

Category B

Class 2

Safety Function

These valves must open to reduce Safety Injection Tank (SIT) pressure. These valves must remain closed to maintain SIT Pressure.

Justification

These valves are maintained closed during the operating cycle. Testing the valves quarterly is impractical since opening the valve during operation would result in an uncontrolled blow down of the SIT tank with no method to isolate the SIT tanks from the valve. In the power operation mode, testing would put the unit in a condition outside the bounds of the assumed Chapter 14 LOCA analysis. The SIT tanks are required to maintain a nitrogen covered-pressure between 200-250 psig in MODE 1 through 3 (Tech Spec 3.5.1.d).

Alternative Frequency

These valves will be stroke time open tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-31

ASME Code Component(s) Affected

2-FW-44

Category B

Class 3

Safety Function

This valve must open to align both motor driven, and the turbine driven auxiliary feedwater pumps to either steam generator. This valve must close to isolate auxiliary feedwater (AFW) to the corresponding faulted steam generator in the event of a main steam line break.

Justification

Valve 2-FW-44 is the AFW cross-tie isolation between the two steam generators. Stroke testing this valve at power places the plant in a configuration not assumed in the accident analysis. The valve is normally open and no analysis assumes that the valve is closed at the beginning of any accident. During a loss of normal feedwater event and 2-FW-44 initially closed, there will be less total steam generator liquid mass available for reactor coolant system heat removal than the limiting case in the Final Safety Analysis Report. Closing this valve at power causes undue risk by placing the plant in a configuration not assumed in the accident analysis. Reference Safety Analysis memo NE-01-F-036.

Alternative Frequency

This valve will be stroke time open and closure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-32

ASME Code Component(s) Affected

2-MS-190A
2-MS-190B

Category B

Class 2

Safety Function

These valves must open to allow a release of steam to the atmosphere to cool the unit to shutdown cooling conditions. These valves must close to provide containment isolation.

Justification

The atmospheric dump valves (ADVs) are credited with manual operation to perform a controlled release of steam to the atmosphere. Although not credited in the accident analysis, an augmented function of the ADVs is to automatically open above 905 psig steam pressure on a reactor trip from power to avoid challenging the main steam safety valves. Testing the open and fail-safe functions quarterly involves manual isolation with the 2-MS-3A/B valves. Personnel safety is challenged to full cycle the ADVs and the manual isolation valves during power operation, especially in the summer months. CR-03-08984, CR-03-06862, and CR-03-06122 detail these challenges. Section 3.1.1 of NUREG 1482 provides justification for extension of test frequency in certain cases where valves could be cycled quarterly, but hardship and risk may outweigh the benefits of quarterly stroking. Procedural allowance to perform these tests at power as required for post-maintenance retests will be maintained.

Alternative Frequency

These valves will be full-stroke open, full-stroke closure, and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-33

ASME Code Component(s) Affected

2-CS-16.1A
2-CS-16.1B

Category A

Class 2

Safety Function

These valves must open to provide a flow path from the containment sump to the suction of the Emergency Core Cooling System (ECCS) pumps. These valves must close to prevent diversion of flow from the Refueling Water Storage Tank during the injection phase of a Loss of Coolant Accident and to provide containment isolation.

Justification

Stroke testing 2-CS-16.1A and B while in Modes 1-4 requires entry into multiple Technical Specifications action statements, as High Pressure Safety Injection, Low Pressure Safety Injection and Containment Spray pumps on the affected facility must be declared inoperable while these valves are open. NUREG 1482, Section 3.1.2 "Entry into a Limiting Condition for Operation to Perform Testing" states that "Licensees must generally avoid entry into multiple LCOs". Performance of this testing while at power increases core melt frequency and results in a probabilistic risk assessment 'Orange' condition. The benefit of quarterly testing is outweighed by the impact to safety by removal of the entire ECCS train from service.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-34

ASME Code Component(s) Affected

2-RB-2A
2-RB-2B
2-RB-2C

Category C

Class 3

Safety Function

These valves must open to provide a flow path from the associated Reactor Building Closed Cooling Water (RBCCW) pump to the RBCCW header. These valves must close to prevent backflow through an idle RBCCW pump.

Justification

Achieving flowrate to demonstrate full open capability of RBCCW pump discharge check valves requires putting a shutdown cooling heat exchanger in service. This nullifies the RBCCW flow balance settings required for Modes 1-4, and requires entry into multiple Technical Specifications action statements. NUREG 1482, Section 3.1.2 "Entry into a Limiting Condition for Operation to Perform Testing" states that "Licensees must generally avoid entry into multiple LCOs". The margin of safety gained by testing these valves quarterly is outweighed by the impact to safety of disturbing the flow balance.

Alternative Frequency

These valves will be full-stroke open and closure tested during cold shutdown per ISTC-3522(b).

Alternate Test Justification ATJ-35

ASME Code Component(s) Affected

2-SI-616	2-SI-617	2-SI-626
2-SI-627	2-SI-636	2-SI-637
2-SI-646	2-SI-647	

Category B

Class 2

Safety Function

These valves must open to provide a flow path for High Pressure Safety Injection (HPSI flow to the Reactor Coolant System (RCS). These valves are normally open and administratively controlled in a preset throttled position to balance HPSI injection flow between RCS loops. They must close to isolate containment from the HPSI injection header.

Justification

Technical Specification 4.5.2i requires entry into a 4 hour limiting condition for operation (LCO) to restore the throttled position of these motor operated valves (MOVs) following valve operation. Restoration of the throttled settings is a labor intensive activity performed within a locked high radiation area. Quarterly stroke testing increases the HPSI System Maintenance Rule unavailability time as well as the possibility of a mispositioning error, with very limited benefit gained by this testing. These valves are tested in the MOV Program, which is recognized to provide more useful diagnostic data than the trending of stroke times. Section 3.1.1 of NUREG 1482 allows deferment of quarterly testing to cold shutdown frequency in situations where the benefit of quarterly testing is outweighed by the risk of performance.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdown per III-3610.

Alternate Test Justification ATJ-36

ASME Code Component(s) Affected

2-AC-525
2-AC-526

Category C

Class 2

Safety Function

These valves must remain closed to isolate the containment air sampling system from the non-safety-related station air system.

Justification

These valves do not function during normal operation. They have no credited safety function to open. Thus there is no activity which would cause the valve obturator to leave the closed position. There is no design provision for testing these valves. The only practical method of verifying valve closure is with a system leakage test. Performance of a system leakage test during power operation is not practical since containment access would be required.

Performance of a system leakage test during cold shutdown is not practical since setting up test equipment and performing the test would unduly complicate the conduct of cold shutdown operations. (NUREG 1482, section 4.1.6 recognizes that set up and performance of leakage testing may be impractical during cold shutdown and power operations.) Leakage testing at refueling frequency is required by TS 6.13. A part-stroke open verification is performed following this leak test, satisfying the bi-directional testing requirement for check valves.

Alternative Frequency

These valves will be full-stroke open and closure tested during refueling outages per ISTC-3522(c).

Alternate Test Justification ATJ-37

ASME Code Component(s) Affected

2-IA-27.1

Category A

Class 2

Safety Function

Close to provide containment isolation. Valve is normally open and will fail safe in the closed direction.

Justification

It is impractical to cycle this valve during power operations, as closing it places the plant in an undesirable configuration.

This valve is required to be open to maintain the instrument air supply to containment. Closing it for any duration would result in the loss of instrument air to several valves that have no backup air supply, including pressurizer spray valves, letdown isolation valves, and RCP bleed-off control valves. Failure of this valve to reopen would cause significant challenge to Reactor Coolant System (RCS) pressure and inventory control, and potential reactor coolant pump seal damage. Section 3.1.1 of NUREG 1482 provides justification for extension of test frequency in certain cases where valves could be cycled quarterly, but hardship and risk may outweigh the benefits of quarterly stroking.

Alternative Frequency

This valve will be stroke time open, stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-38

ASME Code Component(s) Affected

2-SW-8.1A 2-SW-8.1B 2-SW-8.1C

Category B

Class 3

Safety Function

Open automatically on Safety Injection Actuation Signal (SIAS) to allow flow through the Reactor Building Closed Cooling Water (RBCCW) heat exchangers (X18A/B). The valves are normally open and will fail safe in the open direction. Valve stroke timing is considered an augmented test per ISTC-5100, Power Operated Valves.

Justification

These valves modulate to control RBCCW temperature and have a design function to fail open on SIAS. Failure mode and stroke time testing cannot be performed on valves which control temperature of an inservice heat exchanger. In the winter, full cycling would rapidly cool the associated RBCCW header and cause a temperature transient adversely affecting cooling loads, including letdown temperature at the outlet of the non-regenerative heat exchanger, which could result in a reactivity excursion. In the summer, adding the flow from full cycling this valve to the high service water header flowrates from secondary plant loads necessary for generation could challenge runout limitations for the service water pump. These valves have historically been tested while the associated RBCCW heat exchanger was out of service for quarterly cleaning and the spare heat exchanger was in service. The NRC commitment for quarterly RBCCW heat exchanger cleaning has been revised, and the current frequency no longer supports the quarterly valve test frequency of the ASME Code. The spare RBCCW heat exchanger is normally maintained in fresh water layup and must be placed in service to support valve testing. This involves significant alteration to the system alignment involving manipulation of manual valves high in the overhead and accessible only by temporary ladders, resulting in significant personnel safety concerns and unnecessary exposure. The temporary removal from fresh water layup creates waste water and degrades the cleanliness of the spare heat exchanger, necessitating more frequent cleanings and unnecessary challenges to this safety system and its life expectancy. The challenges to safety system function outweigh the benefits of quarterly testing, which have consistently performed with a wide margin to design requirements. Section 2.4.5 of NUREG 1482 Rev. 1 supports that testing of these valves at power is not practical.

Alternate Test Justification ATJ-38

Alternative Frequency

These valves will be stroke timed open and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-39

ASME Code Component(s) Affected

2-RC-403
2-RC-405

Category B

Class 1

Safety Function

This normally open motor operated valve must close by manual operator action on the main control board should its associated PORV become inoperable. This valve must also close by manual means from the main control board should its associated PORV stick open during operation to prevent an uncontrolled depressurization of the Reactor Coolant System (RCS) and limit loss of RCS inventory [TS Bases 3/4.4.3].

This valve is open during normal power operation only to provide a flow path from the pressurizer steam space to its associated PORV. This function is not required for safe shutdown or accident mitigation.

Justification

The safety function of the motor operated "block" valves is to be used by plant operators to isolate a PORV in case of excessive leakage, rendering the PORV inoperable. With one PORV inoperable, due to excessive seat leakage, Technical Specification 3.4.3 allows continued operation of the unit provided the associated block valve is closed with power maintained to the block valve. Reopening the block valve will allow the excessive leakage to resume. Moreover, as noted in SP 2610M, Section 3, re-opening the block valve after extended closure causes the associated PORV to "burp" with symptoms of partial opening of the PORV. Momentary (or extended) opening of the PORV could be a precursor to an unisolable leak in the RCS should the block valve fail to close. The requirement to open the block valve for stroke timing in this condition represents an unnecessary challenge to the integrity of the RCS pressure boundary and increases the potential for further degradation to the PORV. This assessment makes a partial stroke of the block valves impracticable.

Not performing the surveillance on the PORV block valve is not significant to assuring the block valve is capable of opening. The block valves have been shown to be reliable by operating experience and are also subject to the testing requirements of the motor-operated valve testing program.

Alternative Frequency

These valves will be full cycle exercised during cold shutdown per III-3610.

ATTACHMENT 4.8

STATION TECHNICAL POSITION INDEX

Technical Position No.	Description
TP-01	Bi-directional Testing of Check Valves
TP-02	Check Valve Condition Monitoring
TP-03	Fail-Safe Testing of Valves
TP-04	Testing of Power Operated Control Valves
TP-05	Classification of Skid Mounted Components
TP-06	Correlation Between Borated Water, Salt water and H2O
TP-07	Valve Position Indication Testing Augmented By System Parameter Observation
TP-08	Valve Limiting Stroke Times

ATTACHMENT 4.9

STATION TECHNICAL POSITIONS

Technical Position TP-01

Bi-directional Testing of Check Valves

Purpose

The purpose of this Technical Position is to establish the station position for the verification of the non-safety direction exercise testing of check valves by normal plant operations.

Applicability

This Technical Position is applicable to testing of the non-safety function (direction) of check valves which are included in the Inservice Testing Program. This position applies to those check valves required to be tested in accordance with Subsection ISTC and Appendix II - Condition Monitoring (ASME OM Code 2012 Edition). This Technical Position does not apply to testing of the safety function (direction) of check valves included in the Inservice Testing Program.

Background

The ASME OM Code 2012 Edition section ISTC-3550, "Valves in Regular Use", states:

> "Valves that operate in the course of plant operation at a frequency that would satisfy the exercising requirements of this Subsection need not be additionally exercised, provided that the observations otherwise required for testing are made and analyzed during such operation and recorded in the plant record at intervals no greater than specified in ISTC-3510."

Section ISTC-3510 requires that check valves shall be exercised nominally every 3 months with exceptions (for extended periods) referenced.

Section ISTC-5221(a)(2) states:

> "Check valves that have a safety function in only the open direction shall be exercised by initiating flow and observing that the obturator has traveled [to] either the full open position or to the position required to perform its intended function(s) (see ISTA-1100), and verify closure."

Section ISTC-5221(a)(3) states:

> "Check valves that have a safety function in only the close direction shall be exercised by initiating flow and observing that the obturator has traveled [to] at least the partially open position, and verify that on cessation or reversal of flow, the obturator has traveled to the seat.

Technical Position TP-01

Observations shall be made by observing a direct indicator (e.g., a position-indicating device) or by other positive means (e.g., changes in system pressure, flow rate, level, temperature, seat leakage, testing, or nonintrusive testing results)."

"The partially open position should correspond to the normal or expected system flow."

Normal or expected system flow may vary with plant configuration and alignment; however, the open "safety function" of a check valve typically requires a specified design accident flow rate. Since MPS2 Operations staff is trained in recognizing normal plant conditions, Operator judgment is acceptable in determining the check valve non-safety direction by obtaining normal or expected flow rates for the plant operating condition.

In summary, check valve non-safety function direction is satisfactorily demonstrated by verifying closure or passing normal or expected flow as applicable.

Position

DENC will verify the non-safety position of check valves included in the Inservice Testing Program. In lieu of a dedicated surveillance to perform the non-safety direction testing, the following alternate verifications may be performed as follows:

1. Observation of plant processes that a check valve is satisfying its non-safety direction function may used. As an example, a check valve that has a safety function only in the closed direction and normally provides a flow path to maintain plant operations. If the check valve is not open to pass flow, an alarm or indication would identify a problem to the operator. The operator would respond to take appropriate actions. A Condition Report would then be generated for the abnormal plant condition which would identify the check valve failure.

2. Observation of plant logs and other records satisfied by Operator or Engineering reviews may be an acceptable method for verifying a check valve's non-safety direction during normal plant operations.

The open/closed non-safety function shall be recorded at a frequency required by ISTC-3510, nominally every 3 months, with exceptions as provided, in plant records such as MPS2 Operating Logs, Electronic Rounds, chart recorders, automated data loggers, etc. The safety function direction testing requires a

Technical Position TP-01

Quality Record in the form of a surveillance test. Records as indicated above are satisfactory for the non-safety direction testing. A condition report shall be generated for any issues regarding check valve operability.

Justification

This Technical Position requires that the method of determining the non-safety position be established and documented in either the Condition Monitoring Plan or the IST Bases Document. The plant systems and operator actions provide for the observations and analysis that the valve is satisfying its non-safety function. Additionally, the recording of parameters which demonstrate valve position is satisfied at a frequency in accordance with ISTC-3510. These actions collectively demonstrate the non-safety position of Inservice Testing Program check valves in regular use as required by ISTC-3550.

Technical Position TP-02

Check Valve Condition Monitoring

Purpose

The purpose of this Technical Position is to document DENC's position on establishing and implementing a Check Valve Condition Monitoring Program in accordance with mandatory Appendix II of the ASME OM Code 2012 Edition. The Condition Monitoring Program specified in Appendix II provides certain flexibility in establishing test types, examinations, and preventive maintenance activities along with their associated intervals, when justified based on check valve performance and operating condition.

Applicability

This Technical Position is applicable to certain valves or groups of valves as permitted by ISTC-5222, Condition Monitoring Program. All valves tested as part of the Condition Monitoring Program will be denoted by "CM-XX," where XX is the valve's Condition Monitoring group number, under Technical Position in the IST Program Plan.

Position

DENC will implement a Check Valve Condition Monitoring program for selected valves or groups of valves in accordance with ISTC-5222 and Appendix II. The following guidelines will be adhered to for administering this program. Additionally, if the Appendix II program is discontinued for a valve or group of valves, then the requirements of ISTC-3510, ISTC-3520, ISTC-3550, and ISTC-5221 shall be implemented.

1. Purpose

   The purpose of the Check Valve Condition Monitoring Program is to improve check valve performance and to optimize testing, examination, and preventive maintenance activities in order to maintain the continued acceptable performance of a select valve or group of valves.

2. Scope

   The Check Valve Condition Monitoring Program will be applied to individual check valves or groups of check valves which are either candidates for improved performance or candidates whose performance can be optimized.

Technical Position TP-02

a. Candidates for improved valve performance are those check valves which may exhibit one or more of the following attributes:

   i. The valve(s) exhibits an unusually high failure rate during inservice testing or operations;
   ii. The valve(s) cannot be exercised under normal operating conditions or during shutdown;
   iii. The valve(s) exhibits unusual, abnormal, or unexpected behavior during exercising or operations.

b. Candidates for optimization of testing, examination, and preventive maintenance activities are those check valves with documented acceptable performance that:

   i. Have had their performance improved under this program;
   ii. Cannot be exercised or are not readily exercised during normal operating condition or during shutdown;
   iii. Can only be disassembled and examined; or
   iv. It is decided that all of the associated activities of the valve or group will be optimized.

3. Groupings

For valves which are grouped together the following valve attributes shall be considered:

a. Manufacturer, design, size, service media, materials of construction, and orientation.
b. Maintenance and modification history.
c. Test history and results.
d. System design shall be considered to determine potential flow instabilities, degree of disassembly, and the need for tolerance and dimensional measurements.

4. Analysis

An analysis of the test and maintenance history shall be performed to establish the basis for specifying inservice testing, examination, and preventive maintenance activities. This analysis shall include the following:

Technical Position TP-02

a. Identify any common failure mode or corrective maintenance patterns.

b. Analyze these common patterns to determine their significance and to identify potential failure mechanisms:

   i. Determine if certain preventive maintenance activities would mitigate the failure or maintenance patterns;
   ii. Determine if certain condition monitoring activities are possible and effective in monitoring for these failure mechanisms;
   iii. Determine if periodic disassembly and examination would be an effective method in monitoring for these failure mechanisms.
   iv. Determine if the valve grouping is required to be changed.

5. Condition Monitoring Activities

   a. Performance Improvement Activities

      i. If sufficient information is not available or the results of the analysis performed in 4 above are not conclusive, an interim period not to exceed 2 refueling outages shall be established to determine the cause of the failure or maintenance patterns. The following activities shall be performed at sufficient intervals over the interim period.

         1. Identify interim tests (e.g. non-intrusive) to assess the performance of the valve or group of valves.
         2. Identify interim examinations to evaluate potential degradation mechanisms.
         3. Identify other types of analysis to be performed which will assess check valve condition.
         4. Identify which of these activities will be performed on each valve.
         5. Identify the interval of each activity.

Technical Position TP-02

ii. Complete or revise the condition monitoring test plans to document the check valve program performance improvement activities and their associated frequencies.

iii. Perform these activities at their assigned intervals unit:

1. Sufficient information is obtained to permit an adequate analysis.
2. Until the end of the interim period (2 refueling outages or 3 years, whichever is longer).

iv. After performance, a review shall be performed for each activity to determine if changes to the program are required. If changes are required, the program shall be revised before the next performance of the activity.

b. Optimization of Condition Monitoring Activities

i. If sufficient information is available to assess the performance adequacy of the check valve or group, then the following activities shall be performed:

1. Identify applicable preventive maintenance activities including the intervals that are required to maintain the continued acceptable performance of the check valve or group of check valves.
2. Identify the applicable examination activities including the interval that will be used to periodically assess the condition of each check valve or group of check valves.
3. Identify the applicable test activities including intervals that will be used to periodically verify the acceptable performance of each check valve or group of check valves.
4. Identify which of these activities, including the interval, will be performed on each valve in the group.

ii. Revise the condition monitoring plans to document the optimized condition monitoring program activities and associated intervals for each activity.

Technical Position TP-02

iii. Continue performance of these activities at their associated intervals.

iv. Review the results of the performance of each activity to determine if changes to the optimized condition monitoring program are required.

6. Test Requirements and Frequency

The following requirements apply when implementing the above plans for a single valve or group of valves

a. Valve opening and closing functions must be demonstrated when flow testing or examination methods (non-intrusive, or disassembly and inspection) are used.

b. The initial interval for new tests and associated examinations may not exceed two fuel cycles or 3 years, whichever is longer.

c. Extension of the initial interval may not exceed one fuel cycle per extension with the maximum interval not to exceed 10 years.

d. Trending and evaluation of existing data must be used to reduce or extend the time interval between tests.

7. Documentation

The condition monitoring program shall be documented per the Check Valve Condition Monitoring Administrative Procedure. The plan for each check valve or group of check valves shall be documented in the Condition Monitoring Plan and shall contain as a minimum the following information:

a. The list of valves in each group including the group basis.
b. Date the valve or group of valves was evaluated for inclusion or exclusion from the condition monitoring program.
c. Safety function of valve or valve group.
d. Analysis/justification which forms the basis for the program.
e. Identification of the failure or maintenance patterns for each valve
f. Condition monitoring activities including intervals for each valve or valve group.
g. Trending attributes and bases for the associated valve or valve group.

Technical Position TP-03

Fail-Safe Testing of Valves

Purpose

The purpose of this Technical Position is to establish the station position for fail-safe testing of valves in conjunction with stroke time exercising or position indication testing.

Applicability

This Technical Position is applicable to valves with fail-safe actuators required to be tested in accordance with ISTC-3560.

Background

The ASME OM Code 2012 Editon section ISTC-3560 requires;

> "Valves with fail-safe actuators shall be tested by observing the operation of the actuator upon loss of valve actuating power in accordance with the exercising frequency of ISTC-3510."

Section ISTC-3510 states;

> "Active Category A, Category B, and Category C check valves shall be exercised nominally every 3 months..."

Position

In cases where normal valve operator action moves the valve to the open or closed position by de-energizing the operator electrically, by venting air, or both, the exercise test will satisfy the fail-safe test requirements and an additional test specific for fail-safe testing will not be performed.

DENC will also use remote position indication as applicable to verify proper fail-safe operation, provided that the indication system for the valve is periodically verified in accordance with ISTC-3700.

Justification

MPS2 Inservice Testing Program valves that fail open or closed upon loss of actuator power use the fail-safe mechanism to stroke the valve to its safety position. For example, an air operated valve that fails closed may use air to open the valve against spring force. When the actuator control switch is placed in the closed position, air is vented from the diaphragm and the spring moves the obturator to the closed position.

Technical Position TP-04

Testing of Power Operated Control Valves

Purpose

The purpose of this Technical Position is to establish the station position for testing of power-operated control valves that have only a fail-safe safety function.

Applicability

This Technical Position is applicable to power-operated control valves that have only a fail-safe safety function and are required to be tested in accordance with ISTC-3560.

Background

Code Case OMN-8 has been incorporated into the ASME OM Codes in ISTC-5100:

"..For power-operated control valves that only have a fail-safe safety function, the requirements for valve stroke time measurement testing, the associated stroke time test acceptance criteria, and any corrective actions that would result from stroke time testing need not be met..."

Position

No stroke time testing is required for these valves since this function is excluded from testing based on ISTC-5100. The fail-safe function of these valves will be tested in accordance with the ASME OM Code requirements of ISTC-3560.

Justification

ASME OM Code 2012 Edition, paragraph ISTC-5100

Technical Position TP-05

Classification of Skid-Mounted Components

Purpose

The purpose of this technical position is to clarify requirements for classification and testing of various skid mounted components.

Background

The ASME Code allows classification of some components as skid-mounted when their satisfactory operation is demonstrated by the satisfactory performance of the associated major components. Testing of the major component is sufficient to satisfy Inservice Testing requirements for skid-mounted components. In section 3.4 of NUREG 1482, the NRC supports the designation of components as skid-mounted:

> "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 the licensee documents this approach in the IST Program. This is acceptable for both Code class components and non-Code class components tested and tracked by the IST Program."

This definition as stated in the ASME OM Code 2012 Edition:

> ISTA-2000 DEFINITIONS
>
> *Skid mounted pumps and valves*: pumps and valves integral to or that support operation of major components, even though these components may not be located directly on the skid. In general, these pumps and valves are supplied by the manufacturer of the major component. Examples include:
>
> (a) diesel fuel oil pumps and valves
> (b) steam admission and trip throttle valves for high-pressure coolant injection turbine-driven pumps
> (c) steam admission and trip throttle valves for auxiliary feedwater turbine-driven pumps
> (d) solenoid-operated valves provided to control an air-operated valve

Technical Position TP-05

Additionally the Subsections pertaining to pumps (ISTB) and valves (ISTC) includes exclusions/exemptions for skid-mounted components;

> ISTB-1200(c) Exclusions
>
> Skid-mounted pumps that are tested as part of the major component and are justified by the Owner to be adequately tested.
>
> ISTC-1200 Exemptions
>
> Skid-mounted valves are excluded from this Subsection provided they are tested as part of the major component and are justified by the Owner to be adequately tested.

Position

The 2012 ASME OM Code definition of skid-mounted should be used for classification of components in the MPS2 Inservice Testing Program. In addition, for a component to be considered skid-mounted:

- The major component associated with the skid-mounted component must be surveillance tested at a frequency sufficient to meet ASME Code test frequency for the skid-mounted component.
- Satisfactory operation of the skid-mounted component must be demonstrated by satisfactory operation of the major component.
- The IST Bases Document should describe the basis for classifying a component as skid-mounted, and the IST Program Plan should reference this technical position for the component.

Justification

Classification of components as skid-mounted eliminates the need for testing of sub components that are redundant with testing of major components provided testing of the major components demonstrates satisfactory operation of the "skid-mounted" components.

Technical Position TP-06

Correlation between Borated Water, Salt Water and H2O

Purpose

To document the acceptability of using an alternate test medium for set pressure and leakage testing of relief valves.

Applicability

This technical position meets the requirements of ASME OM Code 2012 Edition, I-8310 "Correlation"

Background

DENC uses H2O for set pressure and leakage testing of relief valves. Some of these valves are in systems that use borated water (CHS, SI, RHR) or salt water (SWP).

OM Code subparagraph I-8300 Alternative Test Media "Pressure relief devices may be subjected to set-pressure tests and seat tightness tests using a test medium (fluid and temperature) other than that for which they are designed, provided the testing complies with paragraphs. I-8310, I8320, and I8330."

Subparagraph I-8310 states "Correlation of pressure relief device operation, with respect to the parameter under test, shall be established for the specified alternate media, as compared to the operating media."

This technical position will document the correlation and acceptability for use of H2O as a test medium.

Position

Use of H20 is acceptable for use in lieu of borated or salt water. There is no effect on set pressure due to variation in fluid density. Effects of density on leakage monitoring are more conservative for H2O and are acceptable for use.

Justification

For a pressure test, a valve is pressurized until the valve lifts off its seat and relieves pressure. Pressure testing uses H2O for all liquid service relief valve tests. Set pressure results are directly affected by disc area and applied spring force.

Technical Position TP-06

Variations in fluid density should have no impact on the applied force. Use of H2O will therefore not change or alter the results of set pressure testing.

For a seat leakage/Tightness test, leakage past the valve seat is measured when the line is pressurized. Fluid flow through a pipe or orifice is inversely proportional to the fluid density. From reference 1, fluid flow can be calculated
For a seat leakage/tightness test, leakage past the valve seat is measured when the line is pressurized. Fluid flow through a pipe or orifice is inversely proportional to the fluid density. From reference 1, fluid flow can be calculated

For flow through a pipe: $Q = 236\ d^2\ (\Delta P / K\ \rho)^{0.5}$

For flow thru an orifice: $Q = 236\ d^2\ C\ (\Delta P / \rho)^{0.5}$

Where:
Q = flow rate (gpm)
d = internal diameter (in)
ρ = weight density of fluid (lb/ft^3)
ΔP = differential pressure (psig)
K = resistance coefficient
C =flow coefficient for orifices and nozzles

For both of the above formulas, the flow rate is inversely proportional to the density of the fluid. As the density of fluid increases, the lower the fluid flow rate will be. For leakage rate testing, this means that the lower the density of the test fluid, the higher the leakage rate at the same test pressure. Fluid density for H2O is likely to be lower than the fluid density of sea water or borated water at the corresponding temperature. Fluid density of borated water will be affected by the boric acid concentration of the fluid. Leak testing with H2O will yield conservative results for systems normally designed for sea water or borated water environments.

Therefore, it is acceptable to use H2O in place of borated or salt water for seat leakage testing.

References

1. Crane Technical Paper 410, 1991"Flow of Fluids through Valves, Fittings, and Pipe"
2. Saline Water Conversion Engineering Data Book, Second Edition, November 1971

Technical Position TP-07

Valve Position Verification Testing Augmented By System Parameter Observation

Purpose

To document the IST program process for verifying valve obturator position during position verification testing.

Applicability

Those valves in the IST program that have indicating lights in the main control room.

Background

Code of Federal Regulations:

10 CFR 50.55a(b)(3)(xi) Valve Position Indication. When implementing ASME OM Code, 2012 Edition, Subsection ISTC–3700, "Position Verification Testing," licensees shall verify that valve operation is accurately indicated by supplementing valve position indicating lights with other indications, such as flow meters or other suitable instrumentation, to provide assurance of proper obturator position.

ASME OM Code 2012 Edition:

ICTC-3700, Position Verification Testing, Valves with remote position indicators shall be observed locally at least once every 2 years to verify that valve operation is accurately indicated. Where practicable, this local observation should be supplemented by other indications such as use of flow meters or other suitable instrumentation to verify obturator position. These observations need not be concurrent. Where local observation is not possible, other indications shall be used for verification of valve operation.

Position verification for active MOVs shall be tested in accordance with Mandatory Appendix III of this Division.

Mandatory Appendix III:

III-3300(e), Inservice Test, Remote position indication shall be verified locally during inservice testing or maintenance activities.

Technical Position TP-07

Position

Supplemental indicators will be used to verify that the obturator of a valve has not separated from the stem when a valve is cycled and the indicating lights are checked. This observation will be performed in both the open and closed direction of the valve to ensure that stem-disk separation has not occurred, though the operations do not need to be concurrent. The observations will take place at least once every two years except for active motor operated valves that fall under the scope of Mandatory Appendix III. Valves within the scope of Mandatory Appendix III will have the obturator position testing performed during the valve's diagnostic test and frequency be concurrent. The observations will take place at least once every two years except for active motor operated valves that fall under the scope of Mandatory Appendix III. Valves within the scope of Mandatory Appendix III will have the obturator position testing performed during the valve's diagnostic test and frequency.

The procedures that will credit the obturator observation will be documented in the IST Bases document.

Justification

The actions stated above will ensure that a stem-disk separation is identified during the observation, should it occur.

Technical Position TP-08

Valve Limiting Stroke Times

Purpose

To document the process for utilizing limiting values associated with power operated valve stroke times.

Applicability

Those valves in the IST program that receive stroke time tests, have limiting values assigned, and do not have a specific design or licensing basis stroke time limit.

Background

Subsection ISTC states that the limiting value(s) of full-stroke time of each power operated valve shall be specified by the Owner. Stroke times that exceed this limiting value shall be immediately declared inoperable. A stroke time that falls between the 'normal' acceptance criteria and the limiting value shall be immediately retested or declared inoperable. If the second set of data meets the acceptance criteria, the cause of the initial deviation shall be analyzed and the results documented in the record of tests. If the second set of data does not meet the acceptance criteria the valve should be declared inoperable.

Position

Consistent with industry practice, the below table identifies the limiting stroke time values that should be applied to power operated valves that do not have more conservative criteria in their design or licensing basis.

Limiting Valve Stroke Time		
Actuator Type	**Reference Stroke Time (ST_r) Range**	**Limiting Stroke Time**
Motor Operated	$\leq$ 10 Seconds	1.5 x ST_r
Motor Operated	> 10 Seconds	1.3 x ST_r
Other Power Operated	$\leq$ 10 Seconds	2.0 x ST_r
Other Power Operated	> 10 Seconds	1.5 x ST_r
Designated Rapid Acting Valves	$\leq$ 2.0 Seconds	$\leq$ 2.0 Seconds

Justification

The position stated above is defining the owner specified limits as allowed by the OM Code.

ATTACHMENT 4.10

INSERVICE TESTING PUMP TABLE

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-11A	26022-1 / H-8	Standard	A	C-H	MTR	3	No	CCR
DESCRIPTION: Reactor Building Closed Cooling Water Pump 'A'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-11B	26022-1 / F-8	Standard	A	C-H	MTR	3	No	CCR
DESCRIPTION: Reactor Building Closed Cooling Water Pump 'B'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM

P-11C	26022-1 / D-8	Standard	A	C-H	MTR	3	No	CCR
DESCRIPTION: Reactor Building Closed Cooling Water Pump 'C'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-122A	26027-2 / D-9	Standard	B	C-V	MTR	3	No	ESV
DESCRIPTION: Chilled Water Pump 'A'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-122B	26027-2 / D-5	Standard	B	C-V	MTR	3	No	ESV
DESCRIPTION: Chilled Water Pump 'B'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-13A	26023-2 / K-5	Standard	A	C-H	MTR	3	No	SFC
DESCRIPTION: Spent Fuel Pool Cooling Pump 'A'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-13B	26023-2 / J-5	Standard	A	C-H	MTR	3	No	SFC
DESCRIPTION: Spent Fuel Pool Cooling Pump 'B'								

TEST	FREQUENCY	NOTES
C-DP	24M	

C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-18A	26017-1 / B-7	Standard	A	PD	MTR	2	No	CVC
DESCRIPTION: Coolant Charging Pump 'A'								

TEST	FREQUENCY	NOTES
C-PD	24M	
C-Q	24M	
C-V	24M	P-02
PD	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-18B	26017-1 / D-7	Standard	A	PD	MTR	2	No	CVC
DESCRIPTION: Coolant Charging Pump 'B'								

TEST	FREQUENCY	NOTES
C-PD	24M	
C-Q	24M	

C-V	24M	P-02
PD	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-18C	26017-1 / F-7	Standard	A	PD	MTR	2	No	CVC
DESCRIPTION: Coolant Charging Pump 'C'								

TEST	FREQUENCY	NOTES
C-PD	24M	
C-Q	24M	
C-V	24M	P-02
PD	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-19A	26017-3 / D-6	Standard	A	C-H	MTR	2	No	BAS
DESCRIPTION: Boric Acid Pump 'A'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02

DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-19B	26017-3 / A-6	Standard	A	C-H	MTR	2	No	BAS
DESCRIPTION: Boric Acid Pump 'B'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-4	26005-3 / F-8	Standard	B	C-H	TURB	3	Yes	AFW
DESCRIPTION: Terry Turbine Auxiliary Feedwater Pump								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-S	24M	
C-V	24M	P-02

DP	3M	
Q	3M	
S	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-41A	26015-2 / J-5	Standard	B	C-H	MTR	2	No	HPI
DESCRIPTION: High Pressure Safety Injection Pump 'A'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-41B	26015-2 / G-5	Standard	B	C-H	MTR	2	No	HPI
DESCRIPTION: High Pressure Safety Injection Pump 'B'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-41C	26015-2 / E-5	Standard	B	C-H	MTR	2	No	HPI
DESCRIPTION: High Pressure Safety Injection Pump 'C'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-42A	26015-1 / C-3	Standard	A	C-V	MTR	2	No	LPI
DESCRIPTION: Low Pressure Safety Injection								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	P-01
Q	3M	P-01
V	3M	P-01, P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-42B	26015-1 / E-3	Standard	A	C-V	MTR	2	No	LPI
DESCRIPTION: Low Pressure Safety Injection								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	P-01
Q	3M	P-01
V	3M	P-01, P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-43A	26015-1 / J-3	Standard	B	C-H	MTR	2	No	CSS
DESCRIPTION: Containment Spray Pump 'A'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-43B	26015-1 / G-3	Standard	B	C-H	MTR	2	No	CSS

DESCRIPTION: Containment Spray Pump 'B'

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-5A	26002-2 / B-11	Standard	A	VLS	MTR	3	No	SWS

DESCRIPTION: Service Water Pump 'A'

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-5B	26002-2 / B-8	Standard	A	VLS	MTR	3	No	SWS

DESCRIPTION: Service Water Pump 'B'

TEST	FREQUENCY	NOTES

C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-5C	26002-2 / B-6	Standard	A	VLS	MTR	3	No	SWS
DESCRIPTION: Service Water Pump 'C'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	
V	3M	P-02

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-9A	26005-3 / B-7	Standard	B	C-H	MTR	3	No	AFW
DESCRIPTION: Auxiliary Feedwater Pump 'A'								

TEST	FREQUENCY	NOTES
C-DP	24M	

C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
P-9B	26005-3 / C-7	Standard	B	C-H	MTR	3	No	AFW
DESCRIPTION: Auxiliary Feedwater Pump 'B'								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-02
DP	3M	
Q	3M	

ATTACHMENT 4.11

INSERVICE TESTING VALVE TABLE

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-112	26028-1 / E-12	Standard	GL	MA	1	2	A	Passive	LC	C	NA	CEB
DESCRIPTION: ILRT Instrument Stop												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-114	26028-1 / D-12	Standard	GL	MA	1	2	A	Passive	LC	C	NA	CEB
DESCRIPTION: ILRT Instrument Stop												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-116	26028-1 / E-12	Standard	GL	MA	1	2	A	Passive	LC	C	NA	ARM
DESCRIPTION: ILRT Instrument Stop												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-117	26028-1 / D-12	Standard	GL	MA	1	2	A	Passive	LC	C	NA	ARM
DESCRIPTION: ILRT Instrument Stop												

TEST	FREQUENCY	Notes

LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-12	26028-2 / G-5	Standard	BF	AO	1.5	2	A	Active	O	OC	C	ARM
DESCRIPTION: "A" Containment Air Monitor Suction Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-15	26028-2 / F-5	Standard	BF	AO	1.5	2	A	Active	C	OC	C	ARM
DESCRIPTION: "A" Containment Air Monitor Return Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-20	26028-2 / K-5	Standard	BF	AO	1.5	2	A	Active	C	OC	C	ARM

DESCRIPTION: "B" Containment Air Monitor Return Control Valve

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-4	26028-1 / E-3	Standard	BF	AO	48	2	A	Active	LC	C	C	CEB

DESCRIPTION: Containment Purge Supply Outside Containment Isol Valve

TEST	FREQUENCY	Notes
FSC	RR	ATJ-24 : TP-03
LTJ	J	
PIT	24M	
STC	RR	ATJ-24

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-47	26028-2 / J-5	Standard	BF	AO	1.5	2	A	Active	O	OC	C	ARM

DESCRIPTION: "B" Containment Air Monitor Suction Control Valve

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	

STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-5	26028-1 / E-6	Standard	BF	AO	48	2	A	Active	LC	C	C	CEB
DESCRIPTION: Containment Purge Supply Valve Inside Containment Isol Valve												

TEST	FREQUENCY	Notes
FSC	RR	ATJ-24 : TP-03
LTJ	J	
PIT	24M	
STC	RR	ATJ-24

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-525	26028-2 / F-11	Standard	CK	SA	1	2	C	Active	C	C	NA	ARM
DESCRIPTION: Station Air Check Valve to Contaiment Air Monitoring System												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-36
CVO	RR	ATJ-36

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-526	26028-2 / K-7	Standard	CK	SA	1	2	C	Active	C	C	NA	ARM
DESCRIPTION: Instrument Air Check Valve to Containment Air Monitoring System												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-36

CVO	RR	ATJ-36

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-527	26028-2 / J-6	Standard	GL	SO	1	2	B	Active	O	C	C	ARM
DESCRIPTION: RM-8262 Supply Isolation												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-528	26028-2 / K-10	Standard	GL	SO	1	2	B	Active	O	C	C	ARM
DESCRIPTION: RM-8262 Return Isolation												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-529	26028-2 / F-6	Standard	GL	SO	1	2	B	Active	O	C	C	ARM
DESCRIPTION: RM-8123 Supply Isolation												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	

STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-530	26028-2 / F-11	Standard	GL	SO	1	2	B	Active	O	C	C	ARM
DESCRIPTION: RM-8123 Return Isolation												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-54	26028-2 / F-3	Standard	CK	SA	0.5	2	AC	Active	SYS	OC	NA	ARM
DESCRIPTION: Sample Return From Cabinet "B" Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-01
CVO	CM	CM-01
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-55	26028-2 / K-4	Standard	CK	SA	.5	2	AC	Active	SYS	OC	NA	ARM
DESCRIPTION: Sample Return From Cabinet "A" Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-01
CVO	CM	CM-01

LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-6	26028-1 / B-11	Standard	BF	AO	48	2	A	Active	LC	C	C	CEB
DESCRIPTION: Containment Purge Return Inside Containment Isolation Valve												

TEST	FREQUENCY	Notes
FSC	RR	ATJ-24 : TP-03
LTJ	J	
PIT	24M	
STC	RR	ATJ-24

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-7	26028-1 / B-13	Standard	BF	AO	48	2	A	Active	LC	C	C	CEB
DESCRIPTION: Containment Purge Return Outside Containment Isol Valve												

TEST	FREQUENCY	Notes
FSC	RR	ATJ-24 : TP-03
LTJ	J	
PIT	24M	
STC	RR	ATJ-24

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-96	26028-1 / J-12	Standard	GL	MA	.5	2	B	Passive	O	O	NA	ESA
DESCRIPTION: Engineered Safeguards Actuation PT-8113 Inst Stop Valve												

TEST	FREQUENCY	Notes

PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-97	26028-1 / K-10	Standard	GL	MA	0.5	2	B	Passive	O	O	NA	ESA
DESCRIPTION: Engineered Safeguards Actuation PT-8114 Inst Stop Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-98	26028-1 / K-5	Standard	GL	MA	0.5	2	B	Passive	O	O	NA	ESA
DESCRIPTION: Engineered Safeguards Actuation PT-8115 Inst Stop Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-AC-99	26028-1 / J-4	Standard	GL	MA	0.5	2	B	Passive	O	O	NA	ESA
DESCRIPTION: Esas Channel "D" PT-8116 & 8117 Ctmt Press Inst Stop Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-089	26017-2 / H-10	Standard	GL	AO	2	2	A	Active	O	C	C	CVC
DESCRIPTION: Letdown Header Outside Ctmt Isolation Valve												

TEST	FREQUENCY	Notes

FSC	CS	ATJ-21 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-21

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-118	26017-1 / G-4	Standard	CK	SA	4	2	C	Active	SYS	C	NA	CVC
DESCRIPTION: Volume Control Tank Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-03
CVO	CM	CM-03

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-154	26017-3 / A-8	Standard	CK	SA	3	2	C	Active	SYS	OC	NA	BAS
DESCRIPTION: Boric Acid Pump "B" Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-155	26017-3 / D-8	Standard	CK	SA	3	2	C	Active	SYS	OC	NA	BAS
DESCRIPTION: Boric Acid Pump "A" Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	3M	

CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-177	26017-3 / G-8	Standard	CK	SA	3	2	C	Active	SYS	OC	NA	BAS
DESCRIPTION: Boric Acid Emergency Supply Header Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-02
CVO	RR	ATJ-02

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-184	26017-3 / G-11	Standard	CK	SA	3	2	C	Active	SYS	C	NA	CVC
DESCRIPTION: PMW FCV Discharge To Blend-Tee Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-04A
CVO	CM	CM-04A

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-190	26017-3 / C-2	Standard	CK	SA	3	2	C	Active	SYS	OC	NA	BAS
DESCRIPTION: Boric Acid Gravity Feed Header Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-02
CVO	RR	ATJ-02

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-CH-191	26017-3 / H-11	Standard	CK	SA	3	2	C	Active	SYS	OC	NA	BAS
DESCRIPTION: Charging Pumps Refueling Water Storage Tank Suction Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-20
CVO	RR	ATJ-20

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-192	26017-3 / H-12	Standard	GL	AO	3	2	B	Active	C	OC	C	BAS
DESCRIPTION: RWST To Charging Header Isolation Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-196	26017-3 / G-11	Standard	GL	AO	3	2	B	Active	C	C	C	BAS
DESCRIPTION: Boric Acid Blended Make Up RWST Inlet Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-CH-198	26017-2 / B-10	Standard	GL	AO	.75	2	A	Active	O	C	C	CVC
DESCRIPTION: Reactor Coolant Pumps Bleedoff Control Valve Assembly												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-12: TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-12

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-315	26017-1 / C-5	Standard	RV	SA	.5	2	C	Active	C	OC	NA	CVC
DESCRIPTION: Charging Pump "A" Suction Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-318	26017-1 / E-5	Standard	RV	SA	.5	2	C	Active	C	OC	NA	CVC
DESCRIPTION: Charging Pump "B" Suction Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-321	26017-1 / G-5	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	CVC
DESCRIPTION: "C" Charging Pump Suction Relief Valve												

TEST	FREQUENCY	Notes

SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-324	26017-1 / G-7	Standard	RV	SA	.75	2	C	Active	C	OC	NA	CVC
DESCRIPTION: Charging Pump "C" Discharge Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-325	26017-1 / E-7	Standard	RV	SA	.75	2	C	Active	C	OC	NA	CVC
DESCRIPTION: "B" Charging Pump Discharge Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-326	26017-1 / C-7	Standard	RV	SA	.75	2	C	Active	C	OC	NA	CVC
DESCRIPTION: Charging Pump "A" Discharge Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-328	26017-1 / B-7	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	CVC
DESCRIPTION: Charging Pump "A" Discharge Check Valve												

TEST	FREQUENCY	Notes

CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-331	26017-1 / D-8	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	CVC
DESCRIPTION: Charging Pump "B" Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-334	26017-1 / F-7	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	CVC
DESCRIPTION: Charging Pump "C" Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-340	26017-1 / B-9	Standard	GL	MA	2	2	B	Active	LC	OC	NA	CVC
DESCRIPTION: Charging Pump Discharge To HPSI Header Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-CH-429	26017-1 / H-8	Standard	GA	MOL	2	2	A	Active	LO	OC	NA	CVC
DESCRIPTION: Charging Header Containment Isolation Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-431	26017-1 / F-12	Standard	CK	SA	2	1	C	Active	SYS	O	NA	CVC
DESCRIPTION: Auxiliary Spray Header Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-06
CVO	CM	CM-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-432	26017-1 / H-12	Standard	CK	SA	2	1	C	Active	SYS	OC	NA	CVC
DESCRIPTION: Loop "2A" Charging Header Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-19
CVO	CS	ATJ-19

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-433	26017-1 / J-12	Standard	CK	SA	2	1	C	Active	SYS	OC	NA	CVC

DESCRIPTION: Loop "1A" Charging Header Non-Return Check Valve

TEST	FREQUENCY	Notes
CVC	CS	ATJ-19
CVO	CS	ATJ-19

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-434	26017-1 / J-11	Standard	GA	MA	2	1	A	Passive	LC	C	NA	CVC

DESCRIPTION: Loop Charging Header Relief Isolation Valve

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-440	26017-1 / B-9	Standard	GL	MA	2	2	B	Active	LC	OC	NA	CVC

DESCRIPTION: Charging Pump Discharge To HPSI Header Isolation Valve

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-501	26017-1 / G-4	Standard	GA	MOL	4	2	B	Active	O	OC	NA	CVC

DESCRIPTION: Volume Control Tank To Charging System Outlet Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-504	26017-3 / H-11	Standard	GA	MOL	3	2	B	Active	O	O	NA	CVC
DESCRIPTION: RWST To Charging Pump Suction Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-505	26017-2 / A-10	Standard	GL	AO	.75	2	A	Active	O	C	C	CVC
DESCRIPTION: RCP Bleedoff Outside Ctmt Control Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-12 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-12

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-506	26017-2 / D-11	Standard	GL	AO	.75	2	A	Active	O	C	C	CVC
DESCRIPTION: RCP Control Bleedoff (Inside Ctmt) Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-12 : TP-03
LTJ	J	

PIT	24M	
STC	CS	ATJ-12

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-508	26017-3 / D-2	Standard	GA	MO	3	2	B	Active	C	O	NA	CVC
DESCRIPTION: "B" Boric Acid Storage Tank Outlet Gravity Feed Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-509	26017-3 / D-3	Standard	GA	MO	3	2	B	Active	C	O	NA	CVC
DESCRIPTION: "A" Boric Acid Storage Tank Outlet Gravity Feed Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-510	26017-3 / D-7	Standard	GL	AO	1	2	B	Active	O	C	C	BAS
DESCRIPTION: Boric Acid Pump "A" Max. Recirculation Isolation Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-511	26017-3 / B-7	Standard	GL	AO	1	2	B	Active	O	C	C	BAS
DESCRIPTION: Boric Acid Pump "B" Max. Recirculation Isolation												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-512	26017-3 / J-10	Standard	BF	AO	3	2	B	Active	O	C	C	BAS
DESCRIPTION: Volume Control Tank Makeup Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-514	26017-3 / E-9	Standard	GA	MO	3	2	B	Active	C	O	NA	CVC
DESCRIPTION: Boric Acid Pumps "A"/"B" To Charging Pump Suction Valve												

TEST	FREQUENCY	Notes
DIAG	III	

FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-515	26017-2 / G-13	Standard	GL	AO	3	1	A	Active	O	C	C	CVC
DESCRIPTION: Letdown Header SIAS Isolation Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-13 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-516	26017-2 / G-12	Standard	GL	AO	3	1	A	Active	O	C	C	CVC
DESCRIPTION: Letdown Header CIAS Containment Isolation Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-13 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-517	26017-1 / F-12	Standard	GL	AO	2	1	A	Active	C	OC	C	CVC
DESCRIPTION: Auxiliary Spray Charging Header Supply Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-14 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-14
STO	CS	ATJ-14

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-518	26017-1 / H-12	Standard	GL	AO	2	1	A	Active	LO	OC	O	CVC
DESCRIPTION: Loop "2A" Charging Header Supply Valve												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-04 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-04
STO	CS	ATJ-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-519	26017-1 / J-11	Standard	GL	AO	2	1	A	Active	LO	OC	O	CVC
DESCRIPTION: Loop "1A" Charging Header Supply Valve												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-04 : TP-03
LTJ	J	
PIT	24M	

STC	CS	ATJ-04
STO	CS	ATJ-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-769	26031-1 / F-2	Standard	CK	SA	.5	2	C	Active	SYS	C	NA	PCA
DESCRIPTION: Hydrazine Supply Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-08
CVO	CM	CM-08

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CH-986	26017-1 / H-8	Standard	SV	SA	.75	2	AC	Active	C	OC	NA	CVC
DESCRIPTION: Charging Header Relief Valve												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CHW-1	26027-2 / C-9	Standard	CK	SA	2	3	C	Active	SYS	O	NA	CWD
DESCRIPTION: "A" Chill Water Pump Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-09
CVO	3M	CM-09

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CHW-11	26027-2 / F-7	Standard	GL	AO	1.5	3	B	Active	O	C	C	CWD
DESCRIPTION: Chilled Water Supply Header Cross Tie Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CHW-12	26027-2 / F-5	Standard	GL	AO	1.5	3	B	Active	O	C	C	CWD
DESCRIPTION: Chilled Water Supply Header Cross Tie Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CHW-13	26027-2 / H-7	Standard	GL	AO	1.5	3	B	Active	O	C	C	CWD
DESCRIPTION: Chill Water Return Header Cross Tie Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CHW-14	26027-2 / H-5	Standard	GL	AO	1.5	3	B	Active	O	C	C	CWD
DESCRIPTION: Chill Water Return Header Cross Tie Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CHW-3	26027-2 / F-8	Standard	GL	AO	2	3	B	Active	C	O	O	CWD
DESCRIPTION: Chilled Water X84A Supply Control Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CHW-31	26027-2 / C-5	Standard	CK	SA	2	3	C	Active	SYS	O	NA	CWD
DESCRIPTION: "B" Chill Water Pump Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-09
CVO	3M	CM-09

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-CHW-33	26027-2 / F-4	Standard	GL	AO	2	3	B	Active	C	O	O	CWD
DESCRIPTION: Chilled Water X84B Supply Control Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CN-29A	26005-3 / C-5	Standard	GA	MA	6	3	B	Active	O	OC	NA	CON
DESCRIPTION: "A" Aux Feed Pump Suction Isolation												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CN-29B	26005-3 / B-5	Standard	GA	MA	6	3	B	Active	O	OC	NA	CST
DESCRIPTION: "B" Aux Feed Pump Suction Isolation												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CN-30	26005-3 / E-6	Standard	GA	MA	8	3	B	Active	O	OC	NA	CST
DESCRIPTION: Turbine Aux Feed Pump Suction Isolation Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-050	26015-3 / K-3	Standard	GA	MA	1	2	A	Passive	C	C	NA	CSS
DESCRIPTION: "B" Containment Spray Header To Recirculation Header Valve												

TEST	FREQUENCY	Notes
LT	60M	V-1

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-051	26015-3 / K-3	Standard	GA	MA	1	2	A	Passive	C	C	NA	CSS
DESCRIPTION: "A" Containment Spray HeaderTo Recirculation Header Valve												

TEST	FREQUENCY	Notes
LT	60M	V-1

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-13.1A	26015-2 / B-9	Standard	GA	MOL	18	2	B	Active	LO	OC	NA	CSS
DESCRIPTION: "A" RWST Outlet Header Isolation Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-13.1B	26015-2 / B-9	Standard	GA	MOL	18	2	B	Active	LO	OC	NA	CSS
DESCRIPTION: "B" RWST Outlet Header Isolation Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-140	26015-2 / H-2	Standard	CK	SA	0.75	2	C	Active	SYS	OC	NA	RSS
DESCRIPTION: 2-CS-16.1A Bonnet Expansion Volume Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-29
CVO	RR	ATJ-29

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-141	26015-2 / H-2	Standard	CK	SA	0.75	2	C	Active	SYS	OC	NA	RSS
DESCRIPTION: 2-CS-16.1B Bonnet Expansion Volume Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-29
CVO	RR	ATJ-29

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-14A	26015-2 / B-10	Standard	CK	SA	18	2	AC	Active	SYS	OC	NA	RSS
DESCRIPTION: "A" RWST Outlet Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-13 : ATJ-22

CVO	CM	CM-13 : ATJ-22
LT	OR	V-1

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-14B	26015-2 / A-9	Standard	CK	SA	18	2	AC	Active	SYS	OC	NA	RSS
DESCRIPTION: "B" RWST Outlet Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-13 : ATJ-22
CVO	CM	CM-13 : ATJ-22
LT	OR	V-1

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-153	26015-1 / H-2	Standard	RV	SA	.75	2	C	Active	C	OC	NA	CSS
DESCRIPTION: "A" Containment Spray Pump Suction Header Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-154	26015-1 / F-2	Standard	RV	SA	.75	2	C	Active	C	OC	NA	CSS
DESCRIPTION: "B" Containment Spray Pump Suction Header Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-CS-15A	26015-2 / B-11	Standard	CK	SA	24	2	C	Active	SYS	O	NA	CSS
DESCRIPTION: "A" Containment Sump Outlet Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-14
CVO	CM	CM-14

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-15B	26015-2 / A-10	Standard	CK	SA	24	2	C	Active	SYS	O	NA	CSS
DESCRIPTION: "B" Containment Sump Outlet Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-14
CVO	CM	CM-14

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-16.1A	26015-2 / B-11	Standard	GA	MO	24	2	A	Active	C	OC	NA	CSS
DESCRIPTION: "A" Containment Sump Outlet Header Isolation												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-33
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-16.1B	26015-2 / B-11	Standard	GA	MO	24	2	A	Active	C	OC	NA	CSS

DESCRIPTION: "B" Containment Sump Outlet Header Isolation

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-33
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-2A	26015-1 / J-5	Standard	CK	SA	8	2	C	Active	SYS	O	NA	CSS

DESCRIPTION: "A" Containment Spray Pump Discharge Check Valve

TEST	FREQUENCY	Notes
CVC	CM	CM-10
CVO	CM	CM-10

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-2B	26015-1 / G-5	Standard	CK	SA	8	2	C	Active	SYS	O	NA	CSS

DESCRIPTION: "B" Containment Spray Pump Discharge Check Valve

TEST	FREQUENCY	Notes
CVC	CM	CM-10
CVO	CM	CM-10

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-3A	26015-1 / J-5	Standard	GA	MA	8	2	B	Passive	LO	O	NA	CSS

DESCRIPTION: "A" Containment Spray Pump Discharge Valve

TEST	FREQUENCY	Notes
NTR	NR	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-3B	26015-1 / G-5	Standard	GA	MA	8	2	B	Passive	LO	O	NA	CSS
DESCRIPTION: "B" Containment Spray Pump Discharge Valve												

TEST	FREQUENCY	Notes
NTR	NR	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-4.1A	26015-1 / J-11	Standard	GA	MO	8	2	A	Active	C	OC	NA	CSS
DESCRIPTION: "A" Containment Spray Header Isolation Valve Pen #4												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-4.1B	26015-1 / H-11	Standard	GA	MO	8	2	A	Active	C	OC	NA	CSS
DESCRIPTION: "B" Containment Spray Header Isolation Valve Pen #5												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	

LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-5A	26015-1 / J-12	Standard	CK	SA	8	2	AC	Active	SYS	OC	NA	CSS
DESCRIPTION: Ctmt Spray Containment Side "A" Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-11
CVO	CM	CM-11
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-5B	26015-1 / G-12	Standard	CK	SA	8	2	AC	Active	SYS	OC	NA	CSS
DESCRIPTION: Ctmt Spray Containment Side "B" Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-11
CVO	CM	CM-11
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-6A	26015-1 / H-5	Standard	CK	SA	2	2	AC	Active	SYS	OC	NA	CSS
DESCRIPTION: "A" Containment Spray Pump Minimum Flow Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-12

CVO	CM	CM-12
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-CS-6B	26015-1 / G-5	Standard	CK	SA	2	2	AC	Active	SYS	OC	NA	CSS
DESCRIPTION: "B" Containment Spray Pump Minimum Flow Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-12
CVO	CM	CM-12
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-EB-100	26028-3 / G-5	Standard	BF	AO	6	2	A	Active	C	OC	FAI	CEB
DESCRIPTION: Hydrogen Purge Isolation Valve (Inside Containment)												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-28 : TP-03
LTJ	J	
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-EB-86	26028-3 / E-4	Standard	GA	MA	0.75	2	A	Passive	LC	C	NA	CEB
DESCRIPTION: RCS Vent To EBFS Pen #82												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-EB-88	26028-2 / G-3	Standard	BF	AO	1.5	2	A	Active	C	OC	C	ARM
DESCRIPTION: "B" Containment Air Monitor Isolation Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-EB-89	26028-2 / J-3	Standard	BF	AO	1.5	2	A	Active	C	OC	C	ARM
DESCRIPTION: "A" Containment Air Monitor Isolation Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-EB-91	26028-3 / F-5	Standard	BF	AO	6	2	A	Active	C	OC	FAI	CPI
DESCRIPTION: Hydrogen Purge Isolation Control Valve (Inside Containment)												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-28 : TP-03
LTJ	J	
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-EB-92	26028-3 / F-2	Standard	BF	AO	6	2	A	Active	C	OC	C	CPI
DESCRIPTION: Hydrogen Purge Isolation Control Valve (Outside Containment)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-EB-99	26028-3 / G-2	Standard	BF	AO	6	2	A	Active	C	OC	C	CPI
DESCRIPTION: Hydrogen Purge Isolation Control Valve (Outside Containment)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

LTJ	J	
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FIRE-108	26011-1 / G-8	Standard	BF	MA	6	2	A	Passive	LC	C	NA	FIR
DESCRIPTION: Fire Protection Containment Supply Isolation Valve												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FIRE-109	26011-1 / G-8	Standard	CK	SA	6	2	AC	Active	SYS	C	NA	FIR
DESCRIPTION: Containment Fire Protection System Water Supply Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-19
CVO	CM	CM-19
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FIRE-34	26011-1 / E-10	Standard	GA	MA	8	NA	B	Active	C	OC	NA	FIR
DESCRIPTION: Fire Header Supply Stop Valve To Auxiliary Feedwater Pump Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FIRE-94A	26011-1 / D-10	Standard	GA	MA	6	NA	B	Active	C	OC	NA	FIR
DESCRIPTION: "A" Aux Feed Pump Emergency Fire Water Supply Valve												

TEST	FREQUENCY	Notes
FCE	RR	V-2 : Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FIRE-94B	26011-1 / D-10	Standard	GA	MA	6	NA	B	Active	C	OC	NA	FIR
DESCRIPTION: "B" Aux Feed Pump Emergency Fire Water Supply Valve												

TEST	FREQUENCY	Notes
FCE	RR	V-2 : Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FIRE-94C	26011-1 / D-10	Standard	GA	MA	8	NA	B	Active	C	OC	NA	FIR
DESCRIPTION: Turbine Aux Feed Pump Emergency Fire Water Supply Valve												

TEST	FREQUENCY	Notes
FCE	RR	V-2 : Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-12A	26005-2 / D-9	Standard	CK	SA	6	2	C	Active	SYS	OC	NA	FWS
DESCRIPTION: #1 S/G Aux Feed Supply Air-Assist Check Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-10

CVO	CS	ATJ-10
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-12B	26005-2 / D-2	Standard	CK	SA	6	2	C	Active	SYS	OC	NA	FWS
DESCRIPTION: #2 S/G Aux Feed Supply Air-Assist Check Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-10
CVO	CS	ATJ-10
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-32A	26005-3 / D-9	Standard	CK	SA	1.0	3	C	Active	SYS	O	NA	FWS
DESCRIPTION: Auxiliary Feedwater Pump 'A' Recirc Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-24
CVO	CM	CM-24

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-32B	26005-3 / B-9	Standard	CK	SA	1.0	3	C	Active	SYS	O	NA	FWS
DESCRIPTION: Auxiliary Feedwater Pump 'B' Recirculation Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-24
CVO	CM	CM-24

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-33	26005-3 / E-9	Standard	CK	SA	1.5	3	C	Active	SYS	O	NA	FWS
DESCRIPTION: Turbine Auxiliary Fedwater Pump Recirc Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-25
CVO	CM	CM-25

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-43A	26005-3 / C-12	Standard	GL	AO	4	3	B	Active	C	O	O	FWS
DESCRIPTION: #1 Steam Generator Aux Feedwater Regulating Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-43B	26005-3 / E-12	Standard	GL	AO	4	3	B	Active	C	O	O	FWS
DESCRIPTION: #2 Steam Generator Aux Feedwater Regulating Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-44	26005-3 / D-12	Standard	GA	MO	6	3	B	Active	O	OC	NA	FWS
DESCRIPTION: Aux Feedwater Pump Discharge Header Cross-Tie Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-31
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-54	26005-3 / D-10	Standard	GA	MA	2	3	B	Active	LC	OC	NA	FWS
DESCRIPTION: Aux Feedwater Supply To Spent Fuel Pool System Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-56A	26005-3 / C-12	Standard	GL	MA	6	3	B	Active	C	OC	NA	FWS
DESCRIPTION: #1 S/G Aux Feed Reg Valve By-Pass												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-56B	26005-3 / E-12	Standard	GL	MA	6	3	B	Active	C	OC	NA	FWS
DESCRIPTION: #2 S/G Aux Feed Reg Valve By-Pass												

TEST	FREQUENCY	Notes

FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-5A	26005-2 / E-8	Standard	CK	SA	18	2	C	Active	O	C	NA	FWS
DESCRIPTION: #1 S/G Main Feed Supply Air-Assist Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-20
CVO	CM	CM-20
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-5B	26005-2 / E-3	Standard	CK	SA	18	2	C	Active	O	C	NA	FWS
DESCRIPTION: #2 S/G Main Feed Supply Air-Assist Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-20
CVO	CM	CM-20
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-7	26005-3 / F-9	Standard	CK	SA	6	3	C	Active	SYS	OC	NA	FWS
DESCRIPTION: Turbine Auxiliary Feedwater Pump Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-09
CVO	CS	ATJ-09

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-8A	26005-3 / C-9	Standard	CK	SA	4	3	C	Active	SYS	OC	NA	FWS
DESCRIPTION: Auxiliary Feedwater Pump "A" Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-09
CVO	CS	ATJ-09

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-8B	26005-3 / C-9	Standard	CK	SA	4	3	C	Active	SYS	OC	NA	FWS
DESCRIPTION: Auxiliary Feedwater Pump "B" Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-09
CVO	CS	ATJ-09

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-GR-11.1	26021-2 / D-5	Standard	GL	AO	3	2	A	Active	C	C	C	GRW
DESCRIPTION: Primary Drain Tank & Quench Tank Vent Header Isolation Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-GR-11.2	26021-2 / D-5	Standard	GL	AO	3	2	A	Active	C	C	C	GRW
DESCRIPTION: Primary Drain Tank & Quench Tank Vent Header Isolation Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-27.1	26009-6 / G-7	Standard	GL	AO	2	2	A	Active	O	C	C	AIC
DESCRIPTION: Containment Structure Instrument Air Control Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-37 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-37
STO	CS	ATJ-37

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-43	26009-8 / F-12	Standard	CK	SA	2	2	AC	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Containment Penetration Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-26

CVO	CM	CM-26
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-566	26009-6 / F-6	Standard	GL	MA	2	2	A	Active	LC	OC	NA	AIC
DESCRIPTION: Backup Air To Header Isolation For 2-CH-517, 2-CH-518, 2-CH-519												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-569	26009-6 / F-6	Standard	CK	SA	1	2	AC	Active	SYS	OC	NA	AIC
DESCRIPTION: Backup Air Chk Valve To Chg Hdr Out Isolations 2-CH-517,518,519												

TEST	FREQUENCY	Notes
CVC	CM	CM-27
CVO	CM	CM-27
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-LRR-43.1	26020-5 / E-3	Standard	GL	AO	3	2	A	Active	C	C	C	CLR
DESCRIPTION: Primary Drain Tank Isolation Valve (Inside Containment)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-LRR-43.2	26020-5 / G-3	Standard	GL	AO	3	2	A	Active	C	C	C	CLR
DESCRIPTION: Primary Drain Tank Isolation Valve (Outside Containment)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-LRR-57.1	26020-5 / A-7	Standard	GL	AO	3	3	B	Passive	C	C	C	CLR
DESCRIPTION: Quench Tank To Pdt & Quench Tank Cooler Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-LRR-61.1	26020-5 / E-10	Standard	GL	AO	.5	2	A	Active	C	C	C	CLR
DESCRIPTION: PDT & Quench Tank Cooler Sample Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-190A	26002-1 / H-4	Standard	GL	AO	8	2	B	Active	C	OC	C	STG
DESCRIPTION: #1 Steam Generator Atmospheric Dump Control Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
STC	CS	ATJ-32
STO	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-190B	26002-1 / C-6	Standard	GL	AO	8	2	B	Active	C	OC	C	STG
DESCRIPTION: #2 Steam Generator Atmospheric Dump Control Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
STC	CS	ATJ-32
STO	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-191A	26002-2 / E-10	Standard	GL	AO	.5	2	B	Active	O	C	C	BDG
DESCRIPTION: #1 Steam Generator Blowdown Sample Control Valve												

TEST	FREQUENCY	Notes

FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-191B	26002-2 / E-12	Standard	GL	AO	.5	2	B	Active	O	C	C	BDG
DESCRIPTION: #2 Steam Generator Blowdown Sample Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-201	26002-1 / J-4	Standard	GA	MOL	4	2	B	Active	O	OC	NA	STG
DESCRIPTION: #1 S/G Supply To Aux Feed Water Turbine Steam Supply Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-202	26002-1 / E-7	Standard	GA	MOL	4	2	B	Active	O	OC	NA	STG
DESCRIPTION: #2 S/G Supply To Aux Feed Water Turbine Steam Supply Valve												

TEST	FREQUENCY	Notes

DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-220A	26002-2 / G-9	Standard	GL	AO	2	2	B	Active	O	C	C	STG
DESCRIPTION: #1 S/G Blowdown Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-220B	26002-2 / E-11	Standard	GL	AO	2	2	B	Active	O	C	C	STG
DESCRIPTION: #2 S/G Blowdown Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-239	26002-1 / E-8	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #2 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes

SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-240	26002-1 / E-8	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #2 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-241	26002-1 / E-8	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #2 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-242	26002-1 / E-9	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #2 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-243	26002-1 / D-9	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #2 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes

SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-244	26002-1 / D-9	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #2 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-245	26002-1 / D-8	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #2 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-246	26002-1 / D-8	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #2 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-247	26002-1 / J-5	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #1 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes

SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-248	26002-1 / J-5	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #1 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-249	26002-1 / J-5	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #1 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-250	26002-1 / J-5	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #1 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-251	26002-1 / J-6	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #1 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes

SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-252	26002-1 / J-6	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #1 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-253	26002-1 / J-6	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #1 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-254	26002-1 / J-6	Standard	SV	SA	6	2	C	Active	C	OC	NA	STG
DESCRIPTION: #1 Steam Generator Safety Relief Valve												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-265B	26002-1 / H-5	Standard	GL	AO	1	2	B	Active	O	C	C	STG
DESCRIPTION: #1 S/G Header Drain Control Valve												

TEST	FREQUENCY	Notes

FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-266B	26002-1 / C-8	Standard	GL	AO	1	2	B	Active	O	C	C	STG
DESCRIPTION: #2 S/G Header Drain Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-464	26002-1 / J-10	Standard	GL	MOL	4	3	B	Active	C	O	NA	STG
DESCRIPTION: Terry Turbine Trip Throttle Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-4A	26002-1 / K-5	Standard	CK	SA	4	3	C	Active	SYS	OC	NA	STG
DESCRIPTION: Auxiliary Feedwater Turbine Supply Check Valve From #1 S/G												

TEST	FREQUENCY	Notes

CVC	CS	ATJ-18
CVO	CS	ATJ-18

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-4B	26002-1 / F-7	Standard	CK	SA	4	3	C	Active	SYS	OC	NA	STG
DESCRIPTION: Auxiliary Feedwater Turbine Supply Check Valve From #2 S/G												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-18
CVO	CS	ATJ-18

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-64A	26002-1 / J-7	Standard	CK	AO	34	2	BC	Active	O	C	C	STG
DESCRIPTION: #1 S/G Main Steam Isolation Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-03
CVO	CM	CM-30
FSC	CS	ATJ-03 : TP-03
PIT	24M	
STC	CS	ATJ-03

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-64B	26002-1 / D-9	Standard	CK	AO	34	2	BC	Active	O	C	C	STG
DESCRIPTION: #2 Steam Generator Main Steam Isolation Valve												

TEST	FREQUENCY	Notes

CVC	CS	ATJ-03
CVO	CM	CM-30
FSC	CS	ATJ-03 : TP-03
PIT	24M	
STC	CS	ATJ-03

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-65A	26002-1 / H-7	Standard	GL	MOL	3	2	B	Active	C	C	NA	STG
DESCRIPTION: #1 S/G Main Steam Isolation Bypass Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-65B	26002-1 / C-9	Standard	GL	MOL	3	2	B	Active	C	C	NA	STG
DESCRIPTION: #2 S/G Main Steam Isolation Bypass Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-PMW-3	26014-2 / D-12	Standard	CK	SA	2	2	AC	Active	SYS	C	NA	PWS

DESCRIPTION: Primary Makeup Water To Quench Tank Check Valve

TEST	FREQUENCY	Notes
CVC	CM	CM-31
CVO	CM	CM-31
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-PMW-43	26014-2 / D-11	Standard	GL	AO	2	2	A	Active	C	C	C	PWS

DESCRIPTION: PMW Quench Tank Supply Control Valve Assembly

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-107A	26022-1 / H-7	Standard	GA	MA	2.5	3	B	Active	O	C	NA	CCR

DESCRIPTION: RBCCW Pump "A" Min Flow Stop Valve

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-107B	26022-1 / F-7	Standard	GA	MA	2.5	3	B	Active	O	C	NA	CCR

DESCRIPTION: RBCCW Pump "B" Min Flow Stop Valve

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-107C	26022-1 / D-7	Standard	GA	MA	2.5	3	B	Active	O	C	NA	CCR
DESCRIPTION: RBCCW Pump "C" Min Flow Stop Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-13.1A	26022-2 / F-4	Standard	BF	AO	18	3	B	Active	C	OC	O	CCR
DESCRIPTION: "A" Shutdown Cooling Heat Exchanger Outlet Stop Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-13.1B	26022-2 / F-8	Standard	BF	AO	18	3	B	Active	C	OC	O	CCR
DESCRIPTION: "B" Shutdown Cooling Heat Exchanger Outlet Stop Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	

STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-210	26022-5 / G-10	Standard	BF	AO	8	3	B	Active	O	C	C	CCR
DESCRIPTION: Degasifier Effluent Cooler Return Isolation Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-211A	26022-1 / H-10	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Pump 11A Header "A" Suction Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-211B	26022-1 / G-9	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Pump 11A Header "B" Suction Valve												

TEST	FREQUENCY	Notes
PIT	24M	

STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-211C	26022-1 / F-10	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Pump 11B Header "A" Suction Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-211D	26022-1 / E-9	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Pump 11B Header "B" Suction Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-211E	26022-1 / D-10	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Pump 11C Header 'A' Suction Valve												

TEST	FREQUENCY	Notes
PIT	24M	

STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-211F	26022-1 / C-9	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Pump 11C Header 'B' Suction Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-251A	26022-1 / G-6	Standard	BF	AO	20	3	B	Active	C	OC	FAI	CCR
DESCRIPTION: RBCCW Pump "B" Discharge Cross-Tie To Hx "A"												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-251B	26022-1 / E-6	Standard	BF	AO	20	3	B	Active	C	OC	FAI	CCR
DESCRIPTION: RBCCW Pump'B'Discharge Cross-Tie To 'A Hx Valve												

TEST	FREQUENCY	Notes
PIT	24M	

STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.1A	26022-5 / J-7	Standard	BF	AO	10	2	B	Active	O	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "A" RBCCW Inlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.1B	26022-5 / E-8	Standard	BF	AO	10	2	B	Active	O	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "B" RBCCW Inlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.1C	26022-5 / G-7	Standard	BF	AO	10	2	B	Active	O	OC	O	CCR
DESCRIPTION: CTMT. Air Recirc Cooling "C" RBCCW Inlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.1D	26022-5 / C-8	Standard	BF	AO	10	2	B	Active	O	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "D" RBCCW Inlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.2A	26022-5 / J-3	Standard	BF	AO	6	2	B	Active	O	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "A" RBCCW Normal Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.2B	26022-5 / E-4	Standard	BF	AO	6	2	B	Active	O	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "B" RBCCW Normal Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.2C	26022-5 / G-3	Standard	BF	AO	6	2	B	Active	O	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "C" RBCCW Normal Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.2D	26022-5 / C-4	Standard	BF	AO	6	2	B	Active	O	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "D" RBCCW Normal Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	

STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.3A	26022-5 / J-3	Standard	BF	AO	10	2	B	Active	C	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "A" RBCCW Emergency Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.3B	26022-5 / E-4	Standard	BF	AO	10	2	B	Active	C	OC	O	CCR
DESCRIPTION: CTMTAir Recirc Cooling 'B' RBCCW Emergency Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.3C	26022-5 / G-3	Standard	BF	AO	10	2	B	Active	C	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "C" RBCCW Emergency Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-28.3D	26022-5 / C-4	Standard	BF	AO	10	2	B	Active	C	OC	O	CCR
DESCRIPTION: CTMT Air Recirc Cooling "D" RBCCW Emergency Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-2A	26022-1 / H-7	Standard	CK	SA	20	3	C	Active	SYS	OC	NA	CCR
DESCRIPTION: RBCCW P11A Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-34
CVO	CS	ATJ-34

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-2B	26022-1 / F-7	Standard	CK	SA	20	3	C	Active	SYS	OC	NA	CCR

DESCRIPTION: RBCCW P11B Discharge Check Valve

TEST	FREQUENCY	Notes
CVC	CS	ATJ-34
CVO	CS	ATJ-34

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-2C	26022-1 / D-7	Standard	CK	SA	20	3	C	Active	SYS	OC	NA	CCR

DESCRIPTION: RBCCW P11C Discharge Check Valve

TEST	FREQUENCY	Notes
CVC	CS	ATJ-34
CVO	CS	ATJ-34

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-30.1A	26022-6 / E-4	Standard	GA	MO	8	2	A	Active	O	C	NA	CCR

DESCRIPTION: "A" RBCCW Header Containment Supply Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-11
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-30.1B	26022-6 / E-4	Standard	GA	MO	6	2	A	Active	O	C	NA	CCR

DESCRIPTION: "B" RBCCW Header Containment Supply Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-11
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-303A	26022-1 / J-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RBCCW Heat Exchanger "A" Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-303B	26022-1 / G-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RBCCW Heat Exchanger "B" Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-303C	26022-1 / E-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RBCCW Heat Exchanger "C" Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-304	26022-3 / K-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Containment Spray Pump "B" Inlet Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-305	26022-3 / J-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: LPSI Pump "B" To RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-306	26022-3 / G-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: HPSI Pump "C" To RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-307	26022-3 / F-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: HPSI Pump "B" To RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-308	26022-3 / D-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: HPSI Pump "A" To RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-309	26022-3 / C-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: LPSI Pump "A" To RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-310	26022-3 / B-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Containment Spray Pump "A" RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-311	26022-2 / D-1	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Engineered Safeguards Room Cooler "A" RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-312	26022-2 / G-3	Standard	RV	SA	1.0	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Shutdown Heat Cooling Hx "A" RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-313	26022-2 / D-5	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Engineered Safeguards Room Cooler "B" RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-314	26022-2 / G-7	Standard	RV	SA	1.0	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Shutdown Cooling Hx "B" RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-315	26022-2 / J-7	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Blowdown Quench Tank Heat Exchanger Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-316	26022-2 / J-10	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Spent Fuel Pool Cooling Hx "B" RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-318	26022-2 / F-11	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Spent Fuel Pool Cooling Hx "A" RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-320	26022-2 / D-11	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: "B" Waste Gas Compressor Aftercooler Inlet PSV-6780 Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-321	26022-2 / C-12	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: "A" Waste Gas Compressor Aftercooler Inlet PSV-6781 Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-322	26022-5 / J-11	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Sample Cooler X64/X65 RBCCW Outlet PSV-6759 Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-324	26022-5 / A-8	Standard	RV	SA	.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Degasifier Vent Condenser RBCCW Outlet Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-325	26022-5 / D-7	Standard	RV	SA	1.5	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Containment Air Recirculation Cooler 'D' RBCCW Rel. Valve.												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-326	26022-5 / G-12	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Letdown Heat Exchanger RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-327	26022-5 / H-12	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Degasifier Effluent Cooler RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-328	26022-5 / F-7	Standard	RV	SA	1.5	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Containment Air Recirculation Cooler 'B' RBCCW Rel. Valve.												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-329	26022-5 / J-6	Standard	RV	SA	1.5	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Containment Air Recirculation Cooler 'A' RBCCW Rel. Valve.												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-330	26022-5 / H-6	Standard	RV	SA	1.5	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Containment Air Recirculation Cooler 'C' RBCCW Rel. Valve.												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-331	26022-6 / H-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Support Cooling Coil 'A' RBCCW Header Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-332	26022-6 / H-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Support Cooling Coil 'B' RBCCW Header Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-333	26022-6 / F-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Support Cooling Coil 'B' RBCCW Header Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-334	26022-6 / F-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Support Cooling Coil 'A' RBCCW Header Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-335	26022-6 / E-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Support Cooling Coil 'B' RBCCW Header Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-336	26022-6 / E-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Support Cooling Coil 'A' RBCCW Header Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-337	26022-4 / K-6	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Primary Drain Tank & Quench Tank Cooler RBCCW Vent Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-338	26022-4 / H-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RCP '1A' Inlet RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-339	26022-4 / G-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RCP '1B' Inlet RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-340	26022-4 / E-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RCP '2A' Inlet RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-341	26022-4 / C-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RCP '2B' Inlet RBCCW Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-342	26022-4 / E-13	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: CEDM Cooler 'C' RBCCW Inlet Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-343	26022-4 / F-13	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: CEDM Cooler 'B' RBCCW Inlet Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-344	26022-4 / H-13	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: CEDM Cooler 'A' RBCCW Inlet Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-37.2A	26022-4 / C-11	Standard	GA	MO	8	2	A	Active	O	C	NA	CCR
DESCRIPTION: "A" RBCCW Header Containment Return Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-11
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-37.2B	26022-4 / A-11	Standard	GA	MO	6	2	A	Active	O	C	NA	CCR
DESCRIPTION: "B" RBCCW Header Containment Return Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-11
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-39	26022-1 / D-6	Standard	GL	MA	.5	3	B	Active	O	C	NA	CCR
DESCRIPTION: "C" RBCCW Pump Radiation Monitor Flow Stop Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-4.1A	26022-1 / J-2	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Heat Exchanger 18A Header "A" Outlet Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-4.1B	26022-1 / H-2	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Heat Exchanger 18A Header "B" Outlet Valve												

TEST	FREQUENCY	Notes

PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-4.1C	26022-1 / G-2	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Heat Exchanger 18B Header "A" Outlet Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-4.1D	26022-1 / F-2	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Heat Exchanger 18B Header "B" Outlet Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-4.1E	26022-1 / E-2	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Heat Exchanger 18C Header "A" Outlet Valve												

TEST	FREQUENCY	Notes

PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-4.1F	26022-1 / D-2	Standard	BF	AO	20	3	B	Active	O/C	OC	FAI	CCR
DESCRIPTION: RBCCW Heat Exchanger 18C Header "B" Outlet Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-402	26022-5 / F-10	Standard	BF	AO	4	3	B	Active	O	C	C	CCR
DESCRIPTION: Letdown Heat Exchanger Outlet Temperature Control Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-26 : TP-03
STC	CS	ATJ-26

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-41	26022-1 / G-6	Standard	GL	MA	.5	3	B	Active	O	C	NA	CCR
DESCRIPTION: "B" RBCCW Pump Radmonitor Flow Stop Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-413	26022-6 / F-5	Standard	SV	SA	6	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Coolant Pump RBCCW Supply Inter-system LOCA Relief - Penetration 53												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-414	26022-4 / B-9	Standard	SV	SA	6	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Coolant Pump RBCCW Return Inter-system LOCA Relief - Penetration 54												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-415	26022-6 / D-5	Standard	SV	SA	6	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Coolant Pump RBCCW Supply Inter-system LOCA Relief - Penetration 24												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-416	26022-4 / C-9	Standard	SV	SA	6	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Reactor Coolant Pump RBCCW Supply Inter-system LOCA Relief - Penetration 29												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-417	26022-1 / G-11	Standard	CK	SA	3	3	C	Active	SYS	C	NA	CCR
DESCRIPTION: PMW Supply to RBCCW Surge Tank Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-33
CVO	CM	CM-33

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-418	26022-1 / G-11	Standard	CK	SA	3	3	C	Active	SYS	C	NA	CCR
DESCRIPTION: PMW to RBCCW Surge Tank Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-33
CVO	CM	CM-33

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-43	26022-1 / H-6	Standard	GL	MA	.5	3	B	Active	O	C	NA	CCR
DESCRIPTION: "A" RBCCW Pump Rad Monitor Flow Stop Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-56A	26022-1 / H-7	Standard	GL	MA	.375	3	B	Active	O	C	NA	CCR
DESCRIPTION: RBCCW Pump "A" Sample Stop Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-56B	26022-1 / F-7	Standard	GL	MA	.375	3	B	Active	O	C	NA	CCR
DESCRIPTION: RBCCW Pump "B" Sample Stop Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-56C	26022-1 / D-7	Standard	GL	MA	.375	3	B	Active	O	C	NA	CCR
DESCRIPTION: RBCCW Pump "C" Sample Stop Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-68.1A	26022-2 / D-2	Standard	GL	AO	2	3	B	Active	C	O	O	CCR
DESCRIPTION: ESGR Cooling 36A RBCCW Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-RB-68.1B	26022-2 / D-6	Standard	GL	AO	2	3	B	Active	C	O	O	CCR
DESCRIPTION: ESGR Cooling 36B RBCCW Outlet Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-8.1A	26022-2 / C-9	Standard	BF	AO	12	3	B	Active	O	OC	C	CCR
DESCRIPTION: SFPC Heat Exchanger RBCCW Header "A" Outlet Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RB-8.1B	26022-2 / E-8	Standard	BF	AO	12	3	B	Active	O	OC	C	CCR
DESCRIPTION: SFPC HX Header 'B' Outlet Stop Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-001	26014-1 / B-9	Standard	GL	AO	.75	2	A	Active	C	C	C	SSR
DESCRIPTION: #1 Hot Leg Loop Flow Control Sample Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-002	26014-1 / G-9	Standard	GL	AO	.75	2	A	Active	C	C	C	SSR
DESCRIPTION: Pressurizer Surge Line Flow Control Sample Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-003	26014-2 / J-10	Standard	GL	AO	.75	2	A	Active	C	C	C	SSR
DESCRIPTION: Pressurizer Relief Line Flow Control Sample Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-045	26014-2 / J-12	Standard	GL	AO	.75	2	A	Active	C	C	C	SSR
DESCRIPTION: Primary Sample System Containment Isolation Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-200	26014-2 / H-7	Standard	RV	SA	2.5	1	C	Active	C	OC	NA	PZR
DESCRIPTION: Pressurizer Safety Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-201	26014-2 / H-7	Standard	RV	SA	2.5	1	C	Active	C	OC	NA	PZR
DESCRIPTION: Pressurizer Safety Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-401	26014-2 / A-8	Standard	GL	AO	3	3	B	Passive	C	C	C	RCS
DESCRIPTION: Quench Tank Flow Control Drain To Pdt Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-402	26014-2 / F-12	Standard	GL	SO	2.5	1	B	Active	C	O	C	PZR
DESCRIPTION: Pressurizer Power Operated Relief Valve												

TEST	FREQUENCY	Notes
FSC	RR	ATJ-27 : TP-03
LT	24M	
PIT	24M	
STC	RR	ATJ-27
STO	RR	ATJ-27

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-403	26014-2 / G-12	Standard	GA	MO	2.5	1	B	Active	O	C	NA	PZR
DESCRIPTION: Pressurizer Power-Operated Relief Valve Isolation Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-39
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-404	26014-2 / F-10	Standard	GL	SO	2.5	1	B	Active	C	O	C	PZR
DESCRIPTION: Pressurizer Power Operated Relief Valve												

TEST	FREQUENCY	Notes
FSC	RR	ATJ-27 : TP-03
LT	24M	
PIT	24M	
STC	RR	ATJ-27
STO	RR	ATJ-27

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-405	26014-2 / G-10	Standard	GA	MO	2.5	1	B	Active	O	C	NA	PZR
DESCRIPTION: Pressurizer Power-Operated Relief Valve Isolation Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-39
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-406	26014-1 / G-6	Standard	GL	AO	0.75	1	B	Active	O	C	C	RCS
DESCRIPTION: Reactor Vessel Drain Header Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-414	26014-1 / J-8	Standard	GL	SO	1	1	B	Active	C	OC	C	RCS
DESCRIPTION: Reactor Head Vent Solenoid Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-15 : TP-03
PIT	24M	
STC	CS	ATJ-15
STO	CS	ATJ-15

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-415	26014-1 / J-9	Standard	GL	SO	1	1	B	Active	C	OC	C	RCS
DESCRIPTION: Reactor Head Vent Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-15 : TP-03
PIT	24M	
STC	CS	ATJ-15
STO	CS	ATJ-15

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-416	26014-1 / J-8	Standard	GL	SO	1	1	B	Active	C	OC	C	RCS
DESCRIPTION: Reactor Head Vent Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-15 : TP-03
PIT	24M	
STC	CS	ATJ-15
STO	CS	ATJ-15

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-417	26014-1 / J-9	Standard	GL	SO	1	1	B	Active	C	OC	C	RCS
DESCRIPTION: Reactor Head Vent Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-15 : TP-03
PIT	24M	
STC	CS	ATJ-15
STO	CS	ATJ-15

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RC-71	26017-1 / J-8	Standard	GL	MA	1	2	A	Passive	LC	C	NA	RCP
DESCRIPTION: Reactor Coolant Pump Seal Injection Header Inlet Valve												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-10	26023-2 / H-10	Standard	CK	SA	10	3	C	Active	SYS	O	NA	SFC
DESCRIPTION: Spent Fuel Pool Cooling RW Purification Return Check Valve												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-152A	26023-2 / K-1	Standard	RV	SA	.75	2	C	Active	C	OC	NA	SFC
DESCRIPTION: Spent Fuel Pool Cooling Heat Exchanger 'A' Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-152B	26023-2 / K-2	Standard	RV	SA	.75	2	C	Active	C	OC	NA	SFC
DESCRIPTION: Spent Fuel Pool Cooling Heat Exchanger 'B' Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-154	26023-1 / K-2	Standard	GA	MA	4	3	A	Passive	LC	C	NA	SFC
DESCRIPTION: Purification To Refuel Pump Stop Valve												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-21	26023-1 / K-2	Standard	GA	MA	4	2	A	Passive	LC	C	NA	SFC

DESCRIPTION: Refuel Pool To RW Purification System Stop Valve

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-222	26023-2 / J-10	Standard	CK	SA	2	3	C	Active	SYS	O	NA	SFC

DESCRIPTION: Emergency Makeup Water From Aux. Feedwater Pps. Inlet Check Valve

TEST	FREQUENCY	Notes
CVC	CM	CM-37
CVO	CM	CM-37

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-232	26023-1 / K-2	Standard	GA	MA	4	2	A	Passive	LC	C	NA	SFC

DESCRIPTION: Fuel Pool Containment Isolation Valve

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-4A	26023-2 / K-5	Standard	CK	SA	8	3	C	Active	SYS	OC	NA	SFC

DESCRIPTION: Spent Fuel Pool Cooling 'A' Pump Discharge Check Valve

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-4B	26023-2 / J-5	Standard	CK	SA	8	3	C	Active	SYS	OC	NA	SFC
DESCRIPTION: Spent Fuel Pool Cooling 'B' Pump Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-63	26023-1 / K-2	Standard	GA	MA	4	3	A	Passive	LC	C	NA	SFC
DESCRIPTION: Refueling Pool Water Supply Isolation Valve												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-67	26023-2 / J-9	Standard	CK	SA	2	3	C	Active	SYS	C	NA	SFC
DESCRIPTION: Primary Makeup Water To Spent Fuel Pool Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-36
CVO	CM	CM-36

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-RW-8	26023-2 / H-5	Standard	CK	SA	10	3	C	Active	SYS	OC	NA	SFC
DESCRIPTION: Spent Fuel Pool Cooling System Discharge Check Valve												

TEST	FREQUENCY	Notes

CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SA-19	26009-8 / C-12	Standard	GA	MA	2	2	A	Passive	LC	C	NA	ASA
DESCRIPTION: Station Air Containment Isolation Valve												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SA-22	26009-10 / C-5	Standard	CK	SA	2	2	AC	Active	SYS	C	NA	ASA
DESCRIPTION: Station Air Containment Penetration Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-38
CVO	CM	CM-38
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-008	26015-2 / H-8	Standard	CK	SA	6	2	C	Active	SYS	O	NA	HPI
DESCRIPTION: "A" HPSI Pump Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-39
CVO	CM	CM-39

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-009	26015-2 / D-11	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: FAC-1 HPSI Header To Loop "2B" Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-23
CVO	RR	ATJ-23

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-010	26015-2 / F-11	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: HPSI Header To Loop "2A" Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-23
CVO	RR	ATJ-23

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-011	26015-2 / H-11	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: FAC-1 HPSI Header To Loop "1B" Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-23
CVO	RR	ATJ-23

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-012	26015-2 / K-11	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: HPSI Header To Loop "1A" Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-23
CVO	RR	ATJ-23

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-113	26015-2 / J-11	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: HPSI FAC-2 Header To Loop 1A Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-23
CVO	RR	ATJ-23

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-114	26015-2 / H-12	Standard	CK	SA	6	2	C	Active	SYS	OC	NA	LPI
DESCRIPTION: LPSI Header 'B' Loop '1A' Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-05
CVO	CS	ATJ-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-123	26015-2 / G-11	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: HPSI FAC-2 Header To Loop 1B Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-23
CVO	RR	ATJ-23

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-124	26015-2 / G-12	Standard	CK	SA	6	2	C	Active	SYS	OC	NA	LPI
DESCRIPTION: LPSI Header 'B' Loop '1B' Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-05
CVO	CS	ATJ-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-133	26015-2 / E-12	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: HPSI FAC-2 Header To Loop 2A Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-23
CVO	RR	ATJ-23

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-134	26015-2 / E-12	Standard	CK	SA	6	2	C	Active	SYS	OC	NA	LPI
DESCRIPTION: LPSI Header 'A' To Loop '2A' Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-05
CVO	CS	ATJ-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-143	26015-2 / C-11	Standard	CK	SA	2	2	C	Active	SYS	OC	NA	HPI

DESCRIPTION: HPSI FAC-2 Header To Loop 2B Check Valve

TEST	FREQUENCY	Notes
CVC	RR	ATJ-23
CVO	RR	ATJ-23

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-144	26015-2 / C-12	Standard	CK	SA	6	2	C	Active	SYS	OC	NA	LPI

DESCRIPTION: LPSI Header 'B' To Loop '2B' Check Valve

TEST	FREQUENCY	Notes
CVC	RR	ATJ-05
CVO	CS	ATJ-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-211	26015-3 / G-9	Standard	RV	SA	1	2	C	Active	C	OC	NA	LPI

DESCRIPTION: #2 Safety Injection Tank Relief Valve

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-215	26015-3 / H-9	Standard	CK	SA	12	1	C	Active	SYS	OC	NA	LPI

DESCRIPTION: #1 Safety Injection Tank Outlet Check Valve

TEST	FREQUENCY	Notes
CVC	CM	CM-40
CVO	CM	CM-40

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-217	26015-3 / H-11	Standard	CK	SA	12	1	C	Active	SYS	OC	NA	HPI
DESCRIPTION: Loop '1A' Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-44
CVO	CM	CM-44

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-221	26015-3 / K-9	Standard	RV	SA	1	2	C	Active	C	OC	NA	LPI
DESCRIPTION: #1 Safety Injection Tank Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-225	26015-3 / F-9	Standard	CK	SA	12	1	C	Active	SYS	OC	NA	LPI
DESCRIPTION: #2 Safety Injection Tank Outlet Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-40
CVO	CM	CM-40

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-227	26015-3 / E-11	Standard	CK	SA	12	1	C	Active	SYS	OC	NA	HPI
DESCRIPTION: Loop '1B' Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-44
CVO	CM	CM-44

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-231	26015-3 / E-9	Standard	RV	SA	1	2	C	Active	C	OC	NA	LPI
DESCRIPTION: Safety Injection Tank #3 Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-235	26015-3 / D-9	Standard	CK	SA	12	1	C	Active	SYS	OC	NA	LPI
DESCRIPTION: #3 Safety Injection Tank Outlet Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-40
CVO	CM	CM-40

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-237	26015-3 / C-11	Standard	CK	SA	12	1	C	Active	SYS	OC	NA	HPI
DESCRIPTION: Loop '2A' Non-Return Ck Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-44
CVO	CM	CM-44

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-241	26015-3 / C-9	Standard	RV	SA	1	2	C	Active	C	OC	NA	LPI
DESCRIPTION: Safety Injection Tank #4 Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-245	26015-3 / B-9	Standard	CK	SA	12	1	C	Active	SYS	OC	NA	LPI
DESCRIPTION: #4 Safety Injection Tank Outlet Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-40
CVO	CM	CM-40

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-247	26015-3 / A-11	Standard	CK	SA	12	1	C	Active	SYS	OC	NA	HPI
DESCRIPTION: Loop "2B" Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-44
CVO	CM	CM-44

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-306	26015-1 / C-7	Standard	BA	AO	10	2	B	Passive	LO	O	NA	SCC
DESCRIPTION: Shutdown Cooling Flow Control Valve												

TEST	FREQUENCY	Notes

PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-312	26015-3 / D-2	Standard	GL	AO	.75	2	A	Active	O	C	C	GN2
DESCRIPTION: N2 Supply To Ctmt Stop Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-400	26015-1 / C-9	Standard	GA	MA	2	2	B	Active	LC	OC	NA	LPI
DESCRIPTION: Shutdown Cooling System Warmup Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-401	26015-2 / E-3	Standard	CK	SA	8	2	C	Active	SYS	O	NA	HPI
DESCRIPTION: HPSI Pump 'B' Suction Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-45
CVO	CM	CM-45

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-405	26015-2 / E-6	Standard	CK	SA	3	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: "C" HPSI Pump Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-01
CVO	RR	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-409	26015-2 / D-10	Standard	RV	SA	.75	2	C	Active	C	OC	NA	HPI
DESCRIPTION: HPSI Header 'B' Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-410	26015-2 / K-3	Standard	CK	SA	8	2	C	Active	SYS	O	NA	HPI
DESCRIPTION: HPSI Pump 'A' Suction Header Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-45
CVO	CM	CM-45

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-411	26015-2 / H-3	Standard	GA	MO	8	2	B	Passive	C	C	NA	HPI
DESCRIPTION: "A"/"B" HPSI Pumps Suction Xtie Valve												

TEST	FREQUENCY	Notes

PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-412	26015-2 / G-3	Standard	GA	MO	8	2	B	Passive	C	C	NA	HPI
DESCRIPTION: "B"/"C" HPSI Pumps Suction Xtie Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-414	26015-2 / G-6	Standard	CK	SA	3	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: "B" HPSI Pump Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-01
CVO	RR	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-417	26015-2 / H-10	Standard	RV	SA	1	2	C	Active	C	OC	NA	HPI
DESCRIPTION: HPSI Header 'A' Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-422	26015-2 / G-6	Standard	CK	SA	2	2	AC	Active	SYS	OC	NA	HPI
DESCRIPTION: "B" HPSI Pump Recirculation Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-47
CVO	CM	CM-47
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-424	26015-2 / H-6	Standard	CK	SA	2	2	AC	Active	SYS	OC	NA	HPI
DESCRIPTION: HPSI Pump 'A' Recirculation Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-47
CVO	CM	CM-47
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-426	26015-2 / F-6	Standard	CK	SA	2	2	AC	Active	SYS	OC	NA	HPI
DESCRIPTION: "C" HPSI Pump Recirculation Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-47
CVO	CM	CM-47
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-427	26015-2 / J-6	Standard	CK	SA	3	2	C	Active	SYS	OC	NA	HPI
DESCRIPTION: "A" HPSI Pump Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-01
CVO	RR	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-430	26015-1 / G-9	Standard	RV	SA	.75	2	C	Active	C	OC	NA	SCC
DESCRIPTION: Shutdown Cooling Hx 'B' To H.P.S.I. Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-431	26015-1 / H-8	Standard	RV	SA	.75	2	C	Active	C	OC	NA	SCC
DESCRIPTION: Shutdown Cooling Hx 'A' To H.P.S.I. Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-434	26015-1 / C-5	Standard	CK	SA	10	2	C	Active	SYS	OC	NA	LPI
DESCRIPTION: LPSI Pump 'B' Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-25
CVO	CS	ATJ-25

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-SI-439	26015-1 / B-9	Standard	RV	SA	.75	2	C	Active	C	OC	NA	LPI
DESCRIPTION: LPSI Header 'B' Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-440	26015-1 / D-2	Standard	GA	MA	14	2	B	Active	LC	OC	NA	LPI
DESCRIPTION: "B" LPSI Pump Suction From Shutdown Cooling Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-441	26015-1 / D-2	Standard	GA	MA	14	2	B	Active	LC	OC	NA	LPI
DESCRIPTION: "A" LPSI Pump Suction From SDC Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-446	26015-1 / E-5	Standard	CK	SA	10	2	C	Active	SYS	OC	NA	LPI
DESCRIPTION: LPSI Pump 'A' Discharge Check Valve												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-25

CVO	CS	ATJ-25

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-451	26015-1 / C-5	Standard	CK	SA	2	2	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: LPSI Pump 'B' Recirculation Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-49
CVO	CM	CM-49
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-452	26015-1 / H-6	Standard	GA	MA	10	2	B	Active	LC	OC	NA	SCC
DESCRIPTION: LPSI Pumps To "A" SDC Heat Exchanger Discharge Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-453	26015-1 / G-5	Standard	GA	MA	10	2	B	Active	LC	OC	NA	SCC
DESCRIPTION: LPSI Discharge To "B" SDC Heat Exchanger												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-456	26015-1 / J-10	Standard	GA	MA	10	2	B	Active	LC	OC	NA	LPI

DESCRIPTION: "A" SDC Heat Exchanger Discharge To SDC Sytem Valve

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-457	26015-1 / H-10	Standard	GA	MA	10	2	B	Active	LC	OC	NA	HPI

DESCRIPTION: "B" SDC Heat Exchanger Discharge To SDC System

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-459	26015-3 / K-2	Standard	GA	MA	2	2	A	Passive	LC	C	NA	HPI

DESCRIPTION: SIS Test Header Downstream Isolation

TEST	FREQUENCY	Notes
LT	60M	V-1

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-460	26015-1 / K-10	Standard	GL	MA	6	2	A	Passive	LC	C	NA	HPI

DESCRIPTION: LPSI /Ctmt Spray Test Header Stop Valve

TEST	FREQUENCY	Notes
LT	60M	V-1

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-463	26015-3 / K-4	Standard	GL	MA	3	2	A	Passive	LC	C	NA	LPI

DESCRIPTION: Safety Injection Tank Drain Header Isolation Valve

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-466	26015-3 / J-12	Standard	RV	SA	1	2	C	Active	C	OC	NA	HPI

DESCRIPTION: HPSI Test Line Relief Valve

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-468	26015-1 / D-8	Standard	RV	SA	1.5	2	C	Active	C	OC	NA	SCC

DESCRIPTION: Shutdown Cooling Suction Relief Valve

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-469	26015-3 / G-5	Standard	RV	SA	1	2	C	Active	C	OC	NA	SCC

DESCRIPTION: Shutdown Cooling Suction Relief Valve

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-611	26015-3 / J-11	Standard	GL	AO	1	2	B	Passive	C	C	C	LPI

DESCRIPTION: #1 Safety Injection Tank Fill & Drain Control Valve												
								TEST	FREQUENCY	Notes		
								PIT	24M			

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-612	26015-3 / J-7	Standard	GL	AO	0.5	2	B	Passive	C	C	C	LPI
DESCRIPTION: #1 Safety Injection Tank Nitrogen Supply Control Valve												
								TEST	FREQUENCY	Notes		
								PIT	24M			

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-613	26015-3 / J-10	Standard	GL	AO	1	2	B	Active	C	OC	NA	LPI
DESCRIPTION: #1 Safety Injection Tank Vent To Containment Valve												
								TEST	FREQUENCY	Notes		
								PIT	24M			
								STC	CS	ATJ-30		
								STO	CS	ATJ-30		

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-614	26015-3 / H-9	Standard	GA	MOL	12	1	B	Active	O	OC	NA	LPI
DESCRIPTION: #1 Safety Injection Tank Outlet Valve												
								TEST	FREQUENCY	Notes		
								DIAG	III			
								FCE	24M			

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-615	26015-1 / E-12	Standard	GL	MO	6	2	B	Active	C	OC	NA	LPI
DESCRIPTION: LPSI Header To Loop "1A" Injection Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-616	26015-2 / J-11	Standard	GL	MO	2	2	B	Active	O	OC	NA	HPI
DESCRIPTION: "B" HPSI Header To Loop "1A" Injection Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-35
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-617	26015-2 / K-11	Standard	GL	MO	2	2	B	Active	O	OC	NA	HPI
DESCRIPTION: "A" HPSI Header To Loop "1A" Injection Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-35

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-618	26015-3 / H-11	Standard	GL	AO	1	1	B	Active	C	C	C	HPI
DESCRIPTION: Loop "1A" Non-Return Check Leakoff Drain Stop Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-17 : TP-03
PIT	24M	
STC	CS	ATJ-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-621	26015-3 / F-11	Standard	GL	AO	1	2	B	Passive	C	C	C	LPI
DESCRIPTION: #2 Safety Injection Tank Fill & Drain Control Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-622	26015-3 / G-7	Standard	GL	AO	0.5	2	B	Passive	C	C	C	LPI
DESCRIPTION: #2 Safety Injection Tank N2 Supply Control Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-623	26015-3 / G-10	Standard	GL	AO	1	2	B	Active	C	OC	NA	LPI

DESCRIPTION: #2 Safety Injection Tank Vent To Containment Valve

TEST	FREQUENCY	Notes
PIT	24M	
STC	CS	ATJ-30
STO	CS	ATJ-30

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-624	26015-3 / F-9	Standard	GA	MOL	12	1	B	Active	O	OC	NA	LPI

DESCRIPTION: #2 Safety Injection Tank Outlet Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-625	26015-1 / D-12	Standard	GL	MO	6	2	B	Active	C	OC	NA	LPI

DESCRIPTION: LPSI Header To Loop "1B" Injection Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-626	26015-2 / G-11	Standard	GL	MO	2	2	B	Active	O	OC	NA	HPI

DESCRIPTION: "B" HPSI Header To Loop "1B" Injection Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-35
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-627	26015-2 / H-11	Standard	GL	MO	2	2	B	Active	O	OC	NA	HPI

DESCRIPTION: "A" HPSI Header To Loop "1B" Injection Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-35
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-628	26015-3 / F-11	Standard	GL	AO	1	1	B	Active	C	C	C	HPI

DESCRIPTION: Loop "1B" Non-Return Check Leakoff Drain Stop Valve

TEST	FREQUENCY	Notes
FSC	CS	ATJ-17 : TP-03
PIT	24M	
STC	CS	ATJ-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-631	26015-3 / D-11	Standard	GL	AO	1	2	B	Passive	C	C	C	LPI

DESCRIPTION: #3 Safety Injection Tank Fill & Drain Control Valve

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-632	26015-3 / E-7	Standard	GL	AO	0.5	2	B	Passive	C	C	C	LPI

DESCRIPTION: #3 Safety Injection Tank N2 Supply Control Valve

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-633	26015-3 / D-10	Standard	GL	AO	1	2	B	Active	C	OC	NA	LPI

DESCRIPTION: #3 Safety Injection Tank Vent To Containment Valve

TEST	FREQUENCY	Notes
PIT	24M	
STC	CS	ATJ-30
STO	CS	ATJ-30

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-634	26015-3 / D-9	Standard	GA	MOL	12	1	B	Active	O	OC	NA	LPI

DESCRIPTION: #3 Safety Injection Tank Outlet Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-635	26015-1 / C-12	Standard	GL	MO	6	2	B	Active	C	OC	NA	LPI
DESCRIPTION: LPSI Header To Loop "2A" Injection Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-636	26015-1 / E-11	Standard	GL	MO	2	2	B	Active	O	OC	NA	HPI
DESCRIPTION: "B" HPSI Header To Loop "2A" Injection Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-35
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-637	26015-2 / F-11	Standard	GL	MO	2	2	B	Active	O	OC	NA	HPI
DESCRIPTION: "A" HPSI Header To Loop "2A" Injection Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-35

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-638	26015-3 / C-11	Standard	GL	AO	1	1	B	Active	C	C	C	HPI
DESCRIPTION: Loop "2A" Non-Return Check Leakoff Drain Stop Valve												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-17 : TP-03
PIT	24M	
STC	CS	ATJ-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-641	26015-3 / B-11	Standard	GL	AO	1	2	B	Passive	C	C	C	LPI
DESCRIPTION: #4 Safety Injection Tank Fill & Drain Control Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-642	26015-3 / B-7	Standard	GL	AO	0.5	2	B	Passive	C	C	C	LPI
DESCRIPTION: #4 Safety Injection Tank N2 Supply Control Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-643	26015-3 / B-10	Standard	GL	AO	1	2	B	Active	C	OC	NA	LPI

DESCRIPTION: #4 Safety Injection Tank Vent To Containment Valve

TEST	FREQUENCY	Notes
PIT	24M	
STC	CS	ATJ-30
STO	CS	ATJ-30

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-644	26015-3 / B-9	Standard	GA	MOL	12	1	B	Active	O	OC	NA	LPI

DESCRIPTION: #4 Safety Injection Tank Outlet Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-645	26015-1 / A-12	Standard	GL	MO	6	2	B	Active	C	OC	NA	LPI

DESCRIPTION: LPSI Header To Loop "2B" Injection Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-646	26015-1 / C-11	Standard	GL	MO	2	2	B	Active	O	OC	NA	HPI

DESCRIPTION: "B" HPSI Header To Loop "2B" Injection Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-35
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-647	26015-2 / D-11	Standard	GL	MO	2	2	B	Active	O	OC	NA	HPI

DESCRIPTION: "A" HPSI Header To Loop "2B" Injection Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-35
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-648	26015-3 / A-11	Standard	GL	AO	1	1	B	Active	C	C	C	HPI

DESCRIPTION: Loop "2B" Non-Return Check Leakoff Drain Stop Valve

TEST	FREQUENCY	Notes
FSC	CS	ATJ-17 : TP-03
PIT	24M	
STC	CS	ATJ-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-651	26015-3 / G-4	Standard	GA	MO	12	1	A	Active	C	OC	NA	SCC

DESCRIPTION: Shutdown Cooling Suction Header Ctmt Isolation Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-16
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-652	26015-3 / G-5	Standard	GA	MO	12	1	B	Active	C	OC	NA	SCC

DESCRIPTION: Shutdown Cooling Suction Header Isolation Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-06
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-653	26015-2 / F-7	Standard	GA	MO	4	2	B	Passive	O/C	OC	NA	HPI

DESCRIPTION: "B" HPSI Pump Discharge Xtie To "B" HPSI Header

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-654	26015-2 / F-8	Standard	GA	MO	6	2	B	Active	O	O	NA	HPI

DESCRIPTION: "B" HPSI Header Stop Valve

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-655	26015-2 / G-7	Standard	GA	MO	4	2	B	Passive	O/C	OC	NA	HPI
DESCRIPTION: "B" HPSI Pump Discharge To "A" HPSI Header Xtie Valve												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-656	26015-2 / H-8	Standard	GA	MO	6	2	B	Active	O	O	NA	HPI
DESCRIPTION: "A" HPSI Header Stop Valve												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-657	26015-1 / E-8	Standard	BA	AO	10	2	B	Active	LC	OC	NA	SCC
DESCRIPTION: Shutdown Cooling Heat Exchanger Flow Control Valve												

TEST	FREQUENCY	Notes
PIT	24M	

STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-659	26015-1 / J-7	Standard	GL	AO	4	2	A	Active	O	OC	O	HPI
DESCRIPTION: ESF Pumps Min Flow Recirculation Header Isolation Valve												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-07 : TP-03
LT	60M	V-1
PIT	24M	
STC	CS	ATJ-07
STO	CS	ATJ-07

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-660	26015-1 / J-6	Standard	GL	AO	4	2	A	Active	O	OC	O	HPI
DESCRIPTION: ESF Pumps Min Flow Recirculation Header Isolation Valve												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-07 : TP-03
LT	60M	V-1
PIT	24M	
STC	CS	ATJ-07
STO	CS	ATJ-07

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-SI-661	26015-3 / J-12	Standard	GL	AO	.75	2	B	Active	C	OC	C	SCC
DESCRIPTION: Safety Injection Tank Recirc. Header To Pdt Drain Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-662	26015-2 / F-4	Standard	GA	MO	4	2	B	Passive	C	C	NA	HPI
DESCRIPTION: "B" SDC Heat Exchanger Discharge To "B" HPSI Suction												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-663	26015-2 / K-3	Standard	GA	MO	4	2	B	Passive	C	C	NA	HPI
DESCRIPTION: "A" SDC Heat Exchanger Discharge To "A" HPSI Suction												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-706A	26015-3 / H-5	Standard	CK	SA	6	1	C	Active	SYS	OC	NA	HPI
DESCRIPTION: Safety Injection System To Loop '1A' Non-Return Check Valve												

TEST	FREQUENCY	Notes

CVC	RR	ATJ-08
CVO	CS	ATJ-08

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-706B	26015-3 / E-7	Standard	CK	SA	6	1	C	Active	SYS	OC	NA	HPI
DESCRIPTION: Safety Injection System To Loop '1B' Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-08
CVO	CS	ATJ-08

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-706C	26015-3 / C-7	Standard	CK	SA	6	1	C	Active	SYS	OC	NA	HPI
DESCRIPTION: Safety Injection System To Loop '2A' Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-08
CVO	CS	ATJ-08

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-706D	26015-3 / A-7	Standard	CK	SA	6	1	C	Active	SYS	OC	NA	HPI
DESCRIPTION: Safety Injection System To Loop '2B' Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-08
CVO	CS	ATJ-08

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SI-709	26015-1 / F-9	Standard	GA	MA	12	2	A	Active	LC	OC	NA	SCC
DESCRIPTION: Shutdown Cooling Suction Header Manual Isolation Valve												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SSP-16.1	26024-1 / J-11	Standard	GL	AO	3	2	A	Active	C	C	C	SSS
DESCRIPTION: Containment Sump Discharge Isolation Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SSP-16.2	26024-2 / E-2	Standard	GL	AO	3	2	A	Active	C	C	C	SSS
DESCRIPTION: Containment Sump Discharge Header Control Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-178A	26008-3 / B-9	Standard	BF	AO	3	3	B	Active	O	OC	O	SWS
DESCRIPTION: Cooler X-181A,X-181B Service Water Control Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-178B	26008-3 / D-9	Standard	GL	AO	1.5	3	B	Active	O	OC	O	SWS
DESCRIPTION: Cooler X-182 Service Water Control Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-178C	26008-3 / E-9	Standard	GL	AO	1.5	3	B	Active	O	OC	O	SWS
DESCRIPTION: Cooler X-183 Service Water Control Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03

PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-189	26008-3 / C-5	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Cooler X-181A,X-181B Outlet Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-190	26008-3 / E-6	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Cooler X-182 Outlet Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-191	26008-3 / F-6	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Cooler X-183 Outlet Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-1A	26008-2 / A-12	Standard	CK	SA	24	3	C	Active	SYS	OC	NA	SWS

DESCRIPTION: "A" Service Water Cooling Pump Outlet Check Valve												
								TEST	FREQUENCY	Notes		
								CVC	3M			
								CVO	3M			

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-1B	26008-2 / A-9	Standard	CK	SA	24	3	C	Active	SYS	OC	NA	SWS
DESCRIPTION: "B" Service Water Cooling Pump Outlet Check Valve												
								TEST	FREQUENCY	Notes		
								CVC	3M			
								CVO	3M			

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-1C	26008-2 / A-6	Standard	CK	SA	24	3	C	Active	SYS	OC	NA	SWS
DESCRIPTION: "C" Service Water Cooling Pump Outlet Check Valve												
								TEST	FREQUENCY	Notes		
								CVC	3M			
								CVO	3M			

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-231A	26008-2 / F-3	Standard	BF	AO	8	3	B	Active	O	C	C	SWS
DESCRIPTION: "A" D/G Heat Exchanger Service Water Bypass Valve												
								TEST	FREQUENCY	Notes		
								FSC	3M	TP-03		

PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-231B	26008-2 / J-3	Standard	BF	AO	8	3	B	Active	O	C	C	SWS
DESCRIPTION: "B" D/G Heat Exchanger Service Water Bypass Valve												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-3.1A	26008-2 / K-12	Standard	BF	AO	24	3	B	Passive	O	O	NA	SWS
DESCRIPTION: "A" Service Water Header To RBCCW Heat Exchangers												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-3.1B	26008-2 / G-12	Standard	BF	AO	24	3	B	Passive	O	O	NA	SWS
DESCRIPTION: "B" Service Water Header To RBCCW Heat Exchangers												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-SW-3.2A	26008-2 / E-12	Standard	BF	AO	16	3	B	Active	O	C	FAI	SWS
DESCRIPTION: "B" Service Water Header Supply To TBCCW Stop Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-3.2B	26008-2 / D-12	Standard	BF	AO	16	3	B	Active	O	C	FAI	SWS
DESCRIPTION: "A" Service Water Header Supply To TBCCW Stop Valve												

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-306	26008-3 / J-12	Standard	RV	SA	.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: "A" Vital Chiller HX Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-307	26008-3 / J-7	Standard	RV	SA	.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: "B" Vital Chiller HX Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-8.1A	26008-2 / J-7	Standard	BF	AO	14	3	B	Active	O	O	O	SWS
DESCRIPTION: "A" RBCCW Heat Exchanger Outlet Temp. Control Valve												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-38 : TP-03
PIT	24M	
STO	CS	ATJ-38

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-8.1B	26008-2 / H-7	Standard	BF	AO	14	3	B	Active	O	O	O	SWS
DESCRIPTION: "B" RBCCW Heat Exchanger Outlet Temp. Control Valve												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-38 : TP-03
PIT	24M	
STO	CS	ATJ-38

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-8.1B (Fac 1)	26008-2 / H-7	Standard	BF	AO	14	3	B	Active	O	O	O	NA
DESCRIPTION: "B" RBCCW Heat Exchanger Outlet Temp. Control Valve - Facility 1 Solenoid Operated												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-8.1B (Fac 2)	26008-2 / H-7	Standard	BF	AO	14	3	B	Active	O	O	O	NA
DESCRIPTION: "B" RBCCW Heat Exchanger Outlet Temp. Control Valve - Facility 2 Solenoid Operated												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-8.1C	26008-2 / G-7	Standard	BF	AO	14	3	B	Active	O	O	O	SWS
DESCRIPTION: "C" RBCCW Heat Exchanger Outlet Temp. Control Valve												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-38 : TP-03
PIT	24M	
STO	CS	ATJ-38

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-89A	26008-2 / C-2	Standard	BF	AO	6	3	B	Active	C	O	O	SWS
DESCRIPTION: "A" D/G Service Water Flow Control Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-SW-89B	26008-2 / F-3	Standard	BF	AO	6	3	B	Active	C	O	O	SWS
DESCRIPTION: "B" D/G Service Water Flow Control Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-90A	26008-2 / A-12	Standard	PLG	AO	3	3	B	Active	C	O	O	SWS
DESCRIPTION: "A" Service Water Pump Discharge Strainer Flush Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-90B	26008-2 / A-9	Standard	PLG	AO	3	3	B	Active	C	O	O	SWS
DESCRIPTION: "B" Service Water Pump Discharge Strainer Flush Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-90C	26008-2 / A-6	Standard	PLG	AO	3	3	B	Active	C	O	O	SWS
DESCRIPTION: "C" Service Water Pump Discharge Strainer Flush Valve												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-92A	26008-2 / K-10	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: "A" RBCCW Heat Exchanger Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-92B	26008-2 / H-10	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: "B" RBCCW Heat Exchanger Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-92C	26008-2 / G-10	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: "C" RBCCW Heat Exchanger Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-97A	26008-2 / C-10	Standard	BF	AO	24	3	B	Active	C	OC	FAI	SWS

DESCRIPTION: "B" Service Water Pump Discharge To "A" Servce Water Header

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-SW-97B	26008-2 / C-7	Standard	BF	AO	24	3	B	Active	C	OC	FAI	SWS

DESCRIPTION: "B" Service Water Pump Dicharge To "A" Service Water Header

TEST	FREQUENCY	Notes
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
PSE-3008	26015-2 / H-2	Standard	RD	SA	1	2	D	Active	C	O	NA	RSS

DESCRIPTION: Rupture Disc - 2-CS-16.1A PLTB Protection

TEST	FREQUENCY	Notes
RD	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
PSE-3009	26015-2 / H-1	Standard	RD	SA	1	2	D	Active	C	O	NA	RSS

DESCRIPTION: Rupture Disc - 2-CS-16.1B PLTB Protection

TEST	FREQUENCY	Notes

RD	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
PSE-7201A	26005-3 / J-5	Standard	RD	SA	12	3	D	Active	C	O	NA	CST
DESCRIPTION: Condensate Storage Tank Vacuum Breaker/Pressure Limiter												

TEST	FREQUENCY	Notes
RD	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
PSE-7201B	26005-3 / J-5	Standard	RD	SA	8	3	D	Active	C	O	NA	CST
DESCRIPTION: Condensate Storage Tank Vacuum Breaker/Pressure Limiter												

TEST	FREQUENCY	Notes
RD	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
PSE-7201C	26005-3 / K-5	Standard	RD	SA	8	3	D	Active	C	O	NA	CST
DESCRIPTION: Condensate Storage Tank Vacuum Breaker/Pressure Limiter												

TEST	FREQUENCY	Notes
RD	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
PSE-7201D	26005-3 / K-5	Standard	RD	SA	12	3	D	Active	C	O	NA	CST
DESCRIPTION: Condensate Storage Tank Vacuum Breaker/Limiter												

TEST	FREQUENCY	Notes

RD	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
PSV-5406	26005-3 / F-7	Standard	RV	SA	1.5	3	C	Active		OC	NA	CON
DESCRIPTION:												

TEST	FREQUENCY	Notes
SP	120M	

Augmented Valves

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-27A	26018-5 / K-13	Augmented	GL	SO	0.25	NA	B	Active	C	C	NA	DGN
DESCRIPTION: "A" Diesel Engine Starting Air Solenoid Operated Vent Valve												

TEST	FREQUENCY	Notes
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-27B	26018-5 / E-12	Augmented	GL	SO	0.25	NA	B	Active	C	C	NA	DGN
DESCRIPTION: "B" Diesel Engine Starting Air Solenoid Operated Vent Valve												

TEST	FREQUENCY	Notes
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-29A	26018-5 / J-11	Augmented	CK	SA	1.5	NA	C	Active	SYS	O	NA	DGN
DESCRIPTION: "A" Diesel Engine Starting Air Supply Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-17
CVO	CM	CM-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-DG-29B	26018-5 / K-6	Augmented	CK	SA	1.5	NA	C	Active	SYS	O	NA	DGN
DESCRIPTION: "A" Diesel Engine Starting Air Supply Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-17
CVO	CM	CM-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-29C	26018-5 / D-10	Augmented	CK	SA	1.5	NA	C	Active	SYS	O	NA	DGN
DESCRIPTION: "B" Diesel Engine Starting Air Supply Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-17
CVO	CM	CM-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-29D	26018-5 / E-6	Augmented	CK	SA	2	NA	C	Active	SYS	O	NA	DGN
DESCRIPTION: "B" Diesel Engine Starting Air Supply Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-17
CVO	CM	CM-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-35A	26018-5 / G-9	Augmented	CK	SA	1.5	NA	C	Active	SYS	C	NA	DGN
DESCRIPTION: "A" Diesel, "A" Starting Air Tank Inlet Check Valve												

TEST	FREQUENCY	Notes

CVC	CM	CM-18
CVO	CM	CM-18

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-35B	26018-5 / G-7	Augmented	CK	SA	1.5	NA	C	Active	SYS	C	NA	DGN
DESCRIPTION: "A" Diesel, "B" Starting Air Tank Inlet Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-18
CVO	CM	CM-18

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-35C	26018-5 / B-9	Augmented	CK	SA	1.5	NA	C	Active	SYS	C	NA	DGN
DESCRIPTION: "B" Diesel, "C" Starting Air Tank Inlet Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-18
CVO	CM	CM-18

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-35D	26018-5 / B-7	Augmented	CK	SA	1.25	NA	C	Active	SYS	C	NA	DGN
DESCRIPTION: "B" Diesel, "D" Starting Air Tank Inlet Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-18
CVO	CM	CM-18

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-54	26018-5 / H-9	Augmented	RV	SA	.5	NA	C	Active	C	OC	NA	DGN
DESCRIPTION: "A" Starting Air Tank Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-55	26018-5 / H-7	Augmented	RV	SA	.5	NA	C	Active	C	OC	NA	DGN
DESCRIPTION: "B" Starting Air Tank Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-56	26018-5 / C-9	Augmented	RV	SA	.5	NA	C	Active	C	OC	NA	DGN
DESCRIPTION: "C" Starting Air Tank Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-57	26018-5 / C-7	Augmented	RV	SA	.5	NA	C	Active	C	OC	NA	DGN
DESCRIPTION: "D" Starting Air Tank Relief Valve												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-91A	26018-5 / K-9	Augmented	GL	AO	1.5	NA	B	Active	C	O	O	DGN
DESCRIPTION: "A" Diesel Engine Starting Air Operated Valve												

TEST	FREQUENCY	Notes
FSO	3M	
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-91B	26018-5 / E-9	Augmented	GL	AO	1.5	NA	B	Active	C	O	O	DGN
DESCRIPTION: "B" Diesel Engine Starting Air Operated Valve												

TEST	FREQUENCY	Notes
FSO	3M	
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-92A	26018-5 / J-11	Augmented	GL	AO	1.5	NA	B	Active	C	O	O	DGN
DESCRIPTION: "A" Diesel Engine Starting Air Operated Valve												

TEST	FREQUENCY	Notes
FSO	3M	
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-92B	26018-5 / D-11	Augmented	GL	AO	1.5	NA	B	Active	C	O	O	DGN
DESCRIPTION: "B" Diesel Engine Starting Air Operated Valve												

TEST	FREQUENCY	Notes
FSO	3M	
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-95A	26018-5 / J-8	Augmented	GL	SO	.375	NA	B	Active	C	O	NA	DGN
DESCRIPTION: Control Air 2-DG-91A Supply Solenoid Operated Valve												

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-95B	26018-5 / E-8	Augmented	GL	SO	.375	NA	B	Active	C	O	NA	DGN
DESCRIPTION: Control Air 2-DG-95B Supply Solenoid Operated Valve												

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-96A	26018-5 / K-10	Augmented	GL	SO	.25	NA	B	Active	C	O	NA	DGN
DESCRIPTION: Control Air 2-DG-92A Supply Solenoid Operated Valve												

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-DG-96B	26018-5 / E-10	Augmented	GL	SO	.25	NA	B	Active	C	O	NA	DGN

DESCRIPTION: Control Air 2-DG-92B Supply Solenoid Operated Valve

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-188	26005-2 / G-9	Augmented	CK	SA	0.5	NA	C	Active		C	NA	NA

DESCRIPTION: Instrument Air Check Valve - 2-FW-51A

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-189	26005-2 / G-2	Augmented	CK	SA	0.5	NA	C	Active		C	NA	NA

DESCRIPTION: Instrument Air Check Valve - 2-FW-51B

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-38A	26005-2 / J-8	Augmented	GA	MOL	18	NC	B	Active	O	C	NA	FWS

DESCRIPTION: "A" STEAM GENERATOR FEEDWATER PUMP DISCHARGE

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-38B	26005-2 / H-8	Augmented	GA	MOL	18	NC	B	Active	O	C	NA	FWS
DESCRIPTION: "B" STEAM GENERATOR FEEDWATER PUMP DISCHARGE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-42A	26005-2 / G-7	Augmented	GA	MOL	18	NC	B	Active	O	C	NA	FWS
DESCRIPTION: #1 STEAM GENERATOR FEED REGULATING VALVE BLOCKING VALVE ASSEMBLY												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-FW-42B	26005-2 / G-4	Augmented	GA	MOL	18	NC	B	Active	O	C	NA	FWS
DESCRIPTION: #2 STEAM GENERATOR FEED REGULATING VALVE BLOCKING VALVE ASSEMBLY												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-HV-509	26027-2 / C-8	Augmented	GL	SO	0.75	NA	B	Active	O	O	NA	CWD
DESCRIPTION: X169A Refrigerant SIAS Control Valve												

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-HV-510	26027-2 / C-3	Augmented	GL	SO	0.75	NA	B	Active	O	O	NA	CWD
DESCRIPTION: X169B Refrigerant SIAS Control Valve												

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-613	26009-8 / J-9	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-EB-88												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-615	26009-8 / H-5	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-EB-89												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-617	26009-5 / J-4	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-AC-47												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-619	26009-5 / G-1	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-AC-12												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-654	26009-5 / F-5	Augmented	CK	SA	1	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - MSIV 2-MS-64A												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-655	26009-5 / H-11	Augmented	CK	SA	1	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - MSIV 2-MS-64B												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-665	26017-3 / K-12	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-CH-192												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-666	26017-3 / G-11	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-CH-196												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-687A	26008-2 / F-11	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC

DESCRIPTION: Instrument Air Check Valve - 2-SW-3.2A

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-687B	26008-2 / E-11	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC

DESCRIPTION: Instrument Air Check Valve - 2-SW-3.2B

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-688	26028-3 / F-5	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC

DESCRIPTION: Instrument Air Check Valve - 2-EB-91

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-689	26028-3 / G-5	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC

DESCRIPTION: Instrument Air Check Valve - 2-EB-100

TEST	FREQUENCY	Notes
CVC	3M	

CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-690	26015-1 / J-8	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-SI-659												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-691	26015-1 / J-6	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-SI-660												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-692	26017-1 / H-11	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-CH-518												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

2-IA-693	26017-1 / K-11	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-CH-519												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-694	26017-1 / G-11	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-CH-517												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-724	26028-3 / F-5	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-EB-92												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-725	26028-3 / G-2	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-EB-99												

TEST	FREQUENCY	Notes

CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-726	26028-2 / K-6	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	CPI
DESCRIPTION: Instrument Air Check Valve - 2-AC-20												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-727	26028-2 / F-5	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	CPI
DESCRIPTION: Instrument Air Check Valve - 2-AC-15												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-756	26009-6 / C-7	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-RB-13.1A												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-IA-759	26009-6 / B-7	Augmented	CK	SA	0.5	NA	C	Active	SYS	C	NA	AIC
DESCRIPTION: Instrument Air Check Valve - 2-RB-13.1B												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-1A	26002-1 / J-7	Augmented	CK	SA	34	NA	C	Active	SYS	C	NA	STG
DESCRIPTION: #1 Steam Generator MSIV Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-28
CVO	CM	CM-28

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
2-MS-1B	26002-1 / D-10	Augmented	CK	SA	34	NA	C	Active	SYS	C	NA	STG
DESCRIPTION: #2 Steam Generator MSIV Non-Return Check Valve												

TEST	FREQUENCY	Notes
CVC	CM	CM-28
CVO	CM	CM-28

ATTACHMENT 4

Millstone Power Station Unit 2
Inservice Testing Program Plan – Snubbers
Fifth Inservice Testing Interval

Revision 0

MILLSTONE POWER STATION UNIT 2
DOMINION ENERGY NUCLEAR CONNECTICUT, INC.

MILLSTONE UNIT 2

ASME OM CODE

INSERVICE TESTING PROGRAM

INTERVAL 5

SNUBBER

PROGRAM PLAN

Commercial Service Date

December 26, 1975

Dominion Energy Nuclear Connecticut, Inc.
Millstone Power Station Unit 2
Rope Ferry Road
Waterford, CT 06385

Revision 0

1.0 PURPOSE

1.1 The Snubber Program Manual establishes and defines the Snubber Program administrative requirements as detailed in Millstone Power Station Unit 2 (MPS2) Technical Specification 3/4.7.8. The primary purpose of this snubber program is to maintain the operational readiness of all Safety-Related and Safety Significant snubbers by periodically examining, testing and monitoring service life to fulfill ASME OM Code requirements as well as applicable plant operating commitments. The examination, testing and service life monitoring (SLM) of Non-Safety-Related snubbers will also be addressed in this program. For the purpose of this program, Non-Safety-Related snubbers may be referred to as Non-QA snubbers.

2.0 SCOPE

2.1 All snubbers shall be examined, tested and monitored in accordance with the requirements of the ASME OM Code, 2012 Edition, for examination, testing and monitoring of snubbers. The only snubbers excluded from these requirements are those that are installed on Non-Safety-Related systems, and then only if their failure or the failure of the system on which they are installed would have no adverse effect on any Safety-Related system.

2.2 All snubbers subject to examination, testing and monitoring in accordance with this Program Manual are listed in Attachments 1 through 5 of this document.

2.3 Non-QA snubbers within the Seismic Interface Boundary are labeled within program procedures and documents as "SIB" and are required to be included in this program and treated the same as Safety-Related snubbers. These snubbers may also be referred to as "Safety Significant" snubbers.

2.4 Dual Function snubbers that are Pipe Supports/Rupture Restraints are labeled within program procedures and documents as "QA-DF" or "SIB-DF" and are required to be included in this program and treated the same as Safety-Related snubbers.

2.5 While Non-Safety-Related snubbers are not addressed by ASME OM Code requirements, these snubbers should be examined, tested and monitored to provide reasonable assurance that they will perform their intended functions.

3.0 REFERENCES

3.1 10 CFR 50.55a, Codes and Standards

3.2 ASME OM Code, Operation and Maintenance of Nuclear Power Plants, 2012 Edition

3.3 ASME Code Case OMN-13, Revision 2, "Performance-Based Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants"

3.4 Millstone Power Station Unit 2 Technical Specification 3/4.7.8

3.5 MP-PROC-ENG-SP-21174, Snubber Functional Testing Surveillance

3.6 MP-PROC-ENG-SP-21149, Snubber Visual Inspection Surveillance

3.7 MP-PROC-ENG-SP-21175, Unit 2 Snubber Service Life Monitoring

3.8 ER-AA-RRM-100, "ASME Section XI Repair/Replacement Fleet Implementation Requirements"

3.9 SP-ME-533, "Mechanical Snubber Testing Revised Acceptance Criteria for Acceleration Testing"

3.10 NRC Commitment 77-47/3L.01 (Commitment Record #39157)

3.11 NUSCo Calculation 81-005-215GM, "INC Mechanical Snubber Replacement"

3.12 Lake Engineering Company Facsimile Message, dated 8/5/97, from D. Brown to Mike Cheskis, "Lubrication of Spherical Bearings"

3.13 Lake Engineering Report No. LEC 292B-R1, Revision 0, dated 01/25/01

3.14 Pacific Scientific Technical Manual Doc. No. 141, DR 1319, Rev. E

3.15 LEC-854-R1, Rev0, "Seal Life Evaluation of Unit 2 Steam Generator Snubbers at Millstone Nuclear Power Station"

3.16 Basic-PSA Design Report DR-3020, Mechanical Shock Arresters Service Life Extension Program

3.17 Lisega letter dated 8/1/2001, "Service Life of LISEGA Hydraulic Snubbers"

3.18 Engineering Memo NSE-06-035, Piston Setting for Hydraulic and Mechanical Snubber installed at Millstone Unit 2, Dated 11/20/06

3.19 Calculation 860-999-0831G P, "M2 Hydraulic and Mechanical Procedure Snubber Settings

4.0 ABBREVIATIONS AND DEFINITIONS

4.1 ABBREVIATIONS

The following standard abbreviations are used by MPS2 and may be found throughout this Program Manual.

ASME	American Society of Mechanical Engineers
CFR	Code of Federal Regulations
MPS2	Millstone Power Station Unit 2
NSS	Nuclear Site Services
SSLR	Snubber Service Life Record

4.2 DEFINITIONS

4.2.1 **Acceptable (Satisfactory) Condition** – This is a snubber condition whereby all visual examination or functional test parameters have been met and the snubber is determined to be capable of performing its design function.

4.2.2 **Accessible Snubbers** - Those snubbers that can be accessed during normal reactor operation.

4.2.3 **Activation** - The change of condition from passive to active, in which the snubber resists rapid displacement of the attached pipe or component.

4.2.4 **Application-Induced Failures** - Failures resulting from environmental conditions or application of the snubber for which it has not been designed or qualified.

4.2.5 **As-Found** - The condition of a snubber as it exists in the system, prior to any preventive maintenance, corrective maintenance, removal from the system or disassembly.

4.2.6 **As-Left** - The condition of a snubber as it exists in the system, after any preventive maintenance, corrective maintenance, or installation in the system.

4.2.7 **Augmented Scope** - Functional testing performed in response to conditions or events such as snubbers in locations where failures occurred previously, locations being tested for Service Life Monitoring, or snubber locations designated by Engineering. A failure of any snubber within the Augmented Scope does not cause an expanded sample to be selected and tested.

4.2.8 **Authorized Nuclear Inspector (ANI)** - An employee of an Authorized Inspection Agency who has been qualified in accordance with NCA-5000 of ASME Section III.

4.2.9 **Authorized Nuclear Inservice Inspector (ANII)** - A person who is employed and has been qualified by an Authorized Inspection Agency to verify that examinations, tests, repairs and replacements are performed in accordance with the rules and requirements of ASME Section XI.

4.2.10 **Augmented Examination Program** - An examination program that addresses additional requirements established by the Owner, Regulatory Authority or other agencies that may not require complete compliance with the requirements of the ASME OM Code.

4.2.11 **Bleed Rate (Release Rate)** - The velocity of snubber movement under a specified load, after activation takes place.

4.2.12 **Cylinder** - The hydraulic pressure vessel that houses the piston, gland, seals and other components that make up the moving part of a hydraulic snubber.

4.2.13 **Dead Band** - The clearance or play (axial movement) in the snubber and end attachment assembly before motion causes activation.

4.2.14 **Defined Test Plan Group (DTPG)** - A population of snubbers from which samples are selected for functional testing

4.2.15 **Degraded Snubber Condition** - For visual examination, this is a condition in which the snubber has one or more visual examination parameters that are unsatisfactory, but the parameter(s) are not serious enough to warrant classifying the overall snubber condition as unsatisfactory (i.e., low fluid level). For functional testing this is a condition in which the snubber still performs the required actions during the test (i.e., activation and bleed), but the actual values obtained are outside a predetermined set of values within the upper or lower limits of the acceptance ranges or are predicted to trend outside the normal functional capability or performance levels prior to the next functional test campaign. This condition warrants further investigation or corrective actions prior to continued service.

4.2.16 **Design/Manufacturing Induced Failures** - A failure resulting from a potential defect in manufacturing or design that gives cause to suspect other similar snubber failures. This includes failure of any snubber that fails to withstand the environment or application for which it is designed.

4.2.17 **Diagnostic Testing** – Testing to determine the cause or mechanism associated with failure, degradation or performance anomaly of a snubber.

4.2.18 **Drag Force** - The force that will sustain low-velocity snubber movement, without activation, throughout the working range of the snubber stroke.

4.2.19 **End Attachments** - The connections at either end of the snubber (pipe clamps, clevises, etc.) that are used to connect the snubber to piping, piping components or structural members.

4.2.20 **Engineering** – The plant group that provides clear and concise design requirements for installed equipment to ensure that all requirements are met relative to snubbers. Engineering also performs evaluations for degraded, unsatisfactory or inoperable snubbers.

4.2.21 **Examination** – Observing, visual monitoring, or measuring to determine conformance to specified requirements.

4.2.22 **Failure Mode Group (FMG)** – One or more snubbers that have failed a functional test due to design or manufacturing defects, application induced mechanisms, maintenance, repair or installation issues or transient dynamic events and those other snubbers that may be susceptible to similar failure mechanisms.

4.2.23 **Functional Test Campaign** - The series of actions required to complete the testing of DTPG samples per ISTD-5200, ISTD-5300 and ISTD-5400, as applicable.

4.2.24 **Functional Test Failure** – Snubbers failing to meet the requirements of MPS2 procedure SP-21174.

4.2.25 **Hydraulic Snubber** – A velocity sensitive device in which load is transmitted through a hydraulic fluid to a component or system during a sudden application of abnormal forces, but allows free motion during normal thermal movement. Velocity is maintained at or below the design threshold without locking; hence the hydraulic snubber will not become locked in a fixed position by a sustained, uninterrupted force.

4.2.26 **Inaccessible Snubbers** - Those snubbers that cannot be accessed during normal reactor operation due to high radiation, temperature, harsh environment or personnel safety.

4.2.27 **Kip** - a unit of measure that equals 1,000 pounds of force, used primarily by architects and engineers to measure engineering loads.

4.2.28 **Maintenance** – Replacement of parts, adjustments, and similar actions that do not change the design of the snubber.

4.2.29 **Maintenance, Repair and Installation-induced Failures** - Failures that result from damage during maintenance, repair and installation activities of a nature that may cause other snubbers to be suspect.

4.2.30 **Mechanical Snubber** - An acceleration sensitive device in which load is transmitted entirely through mechanical parts to a component or system during a sudden application of abnormal forces, but allows free motion during normal thermal movement. Acceleration is maintained at or below the design threshold without locking; hence the mechanical snubber will not become locked in a fixed position by a sustained, uninterrupted force.

4.2.31 **Modification** – An alteration in the design of a snubber.

4.2.32 **Monitoring** – Continuous or periodic observation or measurement to ascertain the performance or obtain characteristics of a snubber.

4.2.33 **Non-Safety-Related – (NSR) Snubbers** - Snubbers that are used in locations where their presence is neither required to perform a specific function in shutting down a reactor to the safe shutdown condition, maintaining the safe shutdown condition, mitigate the consequences of an accident, nor to ensure the integrity of the reactor coolant pressure boundary.

4.2.34 **Normal Operating Conditions** - Plant operating conditions (MODES 1-5), such as reactor startup, operation at power, hot standby, and reactor cool down to cold shutdown.

4.2.35 **Operating Temperatures** - The temperature of the environment surrounding a snubber at its installed plant location during the normal operating condition for which the snubber is required.

4.2.36 **Operational Readiness** - The ability of a snubber to perform its intended function when required.

4.2.37 **Operational Readiness Testing** - Measurement of the required parameters that verify snubber operational readiness.

4.2.38 **Performance Test** – A test to determine whether a snubber meets specified acceptance criteria.

4.2.39 **Plant Operation** – The conditions of startup, operation at power, hot standby and reactor cooldown, as defined by plant Technical Specifications.

4.2.40 **Poppet Valve** - The valve that provides the restriction to flow which results in restraint of axial motion of a hydraulic snubber.

4.2.41 **Predicted Service Life** - The initial service life based on manufacturers recommendation or design review.

4.2.42 **Preservice Examination** – A visual examination performed on a snubber before it is initially placed in service as a new or refurbished unit.

4.2.43 **Preservice Test** – A functional test performed on a snubber before it is initially placed in service as a new or refurbished unit.

4.2.44 **Release Rate** - The rate of the axial snubber movement under a specified load after activation of the snubber takes place.

4.2.45 **Relevant Condition** - A condition observed during a visual examination that requires supplemental examination, corrective measure, repair, replacement, or analytical evaluation.

4.2.46 **Relief Request** - Documents submitted to the NRC requesting permission to deviate from the examination, test or monitoring requirements stipulated in the ASME OM Code. Relief Requests must provide adequate justification and require approval prior to implementation, unless the examination, test or monitoring requirement is clearly impractical or relief has been pre-approved in other regulatory publications (i.e., Regulatory Guides, NUREG's, etc.).

4.2.47 **Repair** - The process of restoring a degraded or unsatisfactory snubber to its current design requirements.

4.2.48 **Replacement Snubber** - Any snubber other than the snubber immediately previously installed at a given location.

4.2.49 **Safety-Related (SR) Snubbers** - All snubbers that are used in locations where their presence is either required to perform a specific function in shutting down a reactor to the safe shutdown condition, maintain the safe shutdown condition, mitigate the consequences of an accident, or to ensure the integrity of the reactor coolant pressure boundary.

4.2.50 **Safety Significant (SS) Snubbers** - All snubbers that are not Safety-Related, but which it has been determined that their failure would have an adverse effect on any Safety-Related system.

4.2.51 **Satisfactory (Acceptable) Snubber Condition** – For visual examination and functional testing, a condition whereby all parameters have been met and the snubber is determined to be capable of performing its design function.

4.2.52 **Service Life** - The period of time a snubber is expected to meet the operational readiness requirements without maintenance.

4.2.53 **Service Life Monitoring** – The identification of service environment conditions and maintenance functions (rebuilds, handling, replacements) that can adversely affect snubber performance.

4.2.54 **Snubber** - A device that provides restraint to a component or system during a sudden application of force, but allows essentially free motion of the component or system during thermal movement.

4.2.55 **Snubber Rebuild/Regrease** – The act of disassembling the snubber, performing a visual examination on the snubber internals, regreasing the snubber (mechanical snubbers only), and reassembling the snubber. Snubber Rebuild/Regrease Activities may also include the replacement of parts. Parts replacement activities may fall under the MPS2 Repair/Replacement Program.

4.2.56 **Snubber Service Life Record** - A restricted access Excel spread sheet used to track a snubbers' service life in a specific location. This spreadsheet is used as a scheduling tool to track work order numbers. The actual QA records for snubber service life are in each individual work order.

4.2.57 **Swing Clearance** - The amount of free space or movement envelope within which the snubber must operate without restriction (binding or damage) from the cold installed position to the hot operating position. (e.g., 4 to 6 degree movement envelope when anchored to the component).

4.2.58 **System Temperature** - System temperature is considered cold for examinations when the steam, gas or liquid system is dry and at ambient temperature. Hot examinations are when the steam, gas or liquid system is charged or at operating pressure and near operating temperature.

4.2.59 **Test Temperature** – The temperature of the environment surrounding the snubber at the time of the operational readiness test.

4.2.60 **Transient Dynamic Event** - An unexpected or potentially damaging occurrence, which was determined to have occurred by reviews of operating data or during the performance of a visual examination.

4.2.61 **Transient Dynamic Event Failure** – The inability of a snubber to perform its intended function due to an unanticipated transient dynamic event.

4.2.62 **Unexplained Failure** – A failure for which the cause has not been determined.

4.2.63 **Unsatisfactory (Unacceptable) Snubber Condition** – A condition in which a snubber does not meet all of the visual examination, functional testing or evaluation parameter requirements and may not be capable of performing its design function.

4.2.64 **Verify** - To determine that a particular action has been performed in accordance with the rules and requirements of this manual or procedure either by witnessing the action or by reviewing records.

4.2.65 **Visual Examination** - The visual observation for impaired functional ability caused by physical damage, leakage, corrosion, or degradation from environmental or operating conditions, using the VT-3 Visual Examination Method as described in subparagraph IWA-2213 of the ASME Boiler & Pressure Vessel Code, Section XI.

5.0 ADMINISTRATIVE CONTROLS

5.1 Program Administration

5.1.1 The Snubber Program Coordinator is the focal point for implementation, control, and interpretations of this program. The controlling administrative references for this manual are MP-PROC-ENG-SP-21174, Snubber Functional Test Surveillance, MP-PROC-ENG-SP-21149, Snubber Visual Inspection Surveillance and MP-PROC-ENG-SP-21175, Unit 2 Snubber Service Life Monitoring.

5.2 Relief Requests

5.2.1 Relief Request S-01 is associated with the MPS2 Snubber Program.

5.3 Code Cases

5.3.1 Code Case OMN-13 Revision 2, Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants, is associated with the MPS2 Snubber Program.

5.4 Manual Revisions and Approvals

5.4.1 The Snubber Program Manual shall be revised as necessary following applicable changes to the Inservice Test (IST) Program or following plant modifications that affect the snubber population. If the proposed revision to the program conflicts with licensing commitments, an approved Relief Request must be obtained before the program is revised.

5.4.2 If a change to the program is identified that does not require an immediate program revision, it shall be tracked via the Corrective Action Program (CAP) until it can be incorporated into the program.

5.4.3 All proposed revisions to the MPS2 Snubber Program Plan must be reviewed in accordance with MPS2 procedures to ensure there are no conflicts between the proposed change and licensing commitments.

6.0 PROGRAM DESCRIPTION

6.1 General Program Requirements

6.1.1 All snubbers will be periodically visually examined in the as-found condition to determine operability in accordance with a frequency based on the requirements of Code Case OMN-13, Revision 2.

6.1.2 A representative sample of snubbers from Safety-Related, Safety Significant, and Non-Safety-Related locations will be selected at designated intervals and functionally tested to verify operability.

6.1.3 Service Life Monitoring of all snubbers will be performed to ensure that no snubbers are left in service beyond their recommended or calculated service life without an evaluation being performed.

6.1.4 Maintenance repair/rebuild and replacement frequency of snubbers will be based on manufacturer recommendations of acceptable service life or based on plant specific criteria.

6.1.5 As-left visual examinations will be performed per applicable code and procedural requirements for snubber installations (pre-service) and re-installations (maintenance and/or testing).

6.1.6 The augmented examination and testing scope of non-safety-related locations will be determined by the Snubber Program Coordinator.

6.2 Plant Operational Requirements

6.2.1 All Safety-Related and Safety Significant snubbers shall be operable as required by MPS2 Technical Specifications or the Technical Requirements Manual for the systems that they restrain.

6.2.2 With one or more snubber(s) considered inoperable during an applicable operating mode, within 72 hours replace or restore the inoperable snubber(s) to operable status AND perform an engineering evaluation per Technical Specification 4.7.8 on the attached component, OR declare the attached system inoperable AND follow the appropriate Technical Specification Action Statement for the affected system.

6.3 Snubber Classification

6.3.1 The snubbers detailed in this program have been selected in accordance with their installed location, related system safety significance and design criteria, and classified as Safety-Related, Safety Significant or Non-Safety-Related.

6.3.2 Factors considered in snubber categorizations are accessibility during reactor operations, manufacturers design characteristics and operating environment.

6.3.2.1 For visual examinations, all of the Safety-Related and Safety Significant snubbers shall be categorized as one population for examination, **OR** they may be categorized as separate accessible and inaccessible populations. The decision of whether to categorize the snubbers as one population or as separate populations may be made before, during or after the completion of the examinations. **IF** combining accessible and inaccessible populations into one population and those populations are currently on different intervals based on previous examination results, **THEN** the shorter interval shall be used for determining subsequent examination interval requirements.

6.4 Snubber and Location Identifiers

6.4.1 A list of individual snubber locations and related systems with information related to the installation location is maintained as attachments to this document.

6.4.2 The plant support ID identifies snubber locations.

6.4.3 Snubber size is related to snubber capacity in Kips. Both mechanical and hydraulic snubbers are related to size.

6.5 General Test Program Requirements:

6.5.1 Tests of snubbers are typically performed during plant outages, but may be performed during normal system operations, as applicable, and shall be conducted by implementing the requirements of this program using approved MPS2 procedures as detailed in References, Section 3.0.

6.5.2 Snubbers shall not be subjected to prior preventive or corrective maintenance (pre-conditioning) specifically for the purpose of meeting the test program requirements.

6.5.2.1 Snubbers that are maintained or repaired by removing or adjusting a snubber part that can affect the results of the applicable tests required by this program shall be tested in accordance with the applicable requirements before returning to service. Additionally, the applicable installation requirements shall be met. The requirements selected shall ensure that the parameters that may have been affected are verified to be acceptable by suitable tests.

6.5.3 Work planning and preparation should begin well in advance of the scheduled work scope to determine any specific issues to be addressed. Initial planning requirements should include the following:

6.5.3.1 Perform a review for previous failed snubber locations that will require the past failed snubber location to be re-tested in the upcoming work scope.

6.5.3.2 Snubbers requiring service life monitoring or seal replacement.

6.5.3.3 Recurring visual examination deficiencies and test failures.

6.5.3.4 Visual as-found examination requirements for the outage or work scope.

6.5.3.5 Preparation of each required test program, snubber listing, each test or examination scope, exam instructions and required paperwork.

6.5.3.6 Functional test samples for each DTPG should be selected in accordance with this program.

6.5.4 All test results shall be documented on the appropriate forms and all copies of test results shall be sent to the Snubber Program Coordinator for applicable evaluations and reviews.

6.6 General Examination Program Requirements:

6.6.1 Examinations of snubbers are typically performed during plant or system outages, but may be performed during normal system operations, as applicable, and shall be conducted by implementing the requirements of this program using approved MPS2 procedures as detailed in References, Section 3.0.

6.6.2 Snubbers shall not be subjected to prior preventive or corrective maintenance (pre-conditioning) specifically for the purpose of meeting the examination program requirements.

6.6.3 All examination results shall be documented on the appropriate forms and all copies of test results shall be sent to the Snubber Program Coordinator for applicable evaluations and reviews.

6.6.4 Transient Event Examinations:

6.6.4.1 If a transient dynamic event (e.g. water hammer, steam hammer, earthquake, etc.) is determined to have occurred, then an examination may be required on all snubbers attached to sections of systems and the system components themselves, that have experienced these unexpected, potentially damaging transients.

6.6.4.2 This examination is independent of the in-service visual examination plan.

6.6.5 In addition to satisfying the visual examination acceptance criteria, freedom-of-motion of snubbers may be required using one of the following:

6.6.5.1 Manually induced snubber movement, or

6.6.5.2 Evaluation of in-place snubber piston settings, or

6.6.5.3 Stroking the snubber through its full range of travel.

6.7 Preservice Program Requirements:

6.7.1 New snubber locations shall only be added, or existing locations permanently removed from the Snubber Program in accordance with the Engineering Change process and applicable implementing procedures.

6.7.2 All new snubber installations shall receive a preservice operability test and visual examination.

6.7.3 Upon completion of removal and subsequent replacement of any snubber for required maintenance or functional test work scope, an as-left preservice visual examination is required to verify correct installation criteria. This visual examination of snubbers will consist of a VT-3 visual examination to satisfy any repair or replacement requirements of the program. All snubber visual exams will include the snubber and associated structural connections.

6.7.4 After installation, the as-left preservice visual examination shall be performed in accordance with the applicable MPS2 visual examination procedures to verify the following:

6.7.4.1 No visible signs of damage or impaired operability exist as a result of storage, handling or installation;

6.7.4.2 Snubber size, location, orientation, position setting and configuration (e.g., attachments and extensions) are in accordance with design drawings and specifications;

6.7.4.3 Adequate swing clearances are provided to allow snubber movement;

6.7.4.4 If applicable, fluid is at the recommended level, and fluid is not leaking from the snubber system; and,

6.7.4.5 Structural connections, such as pins, bearings, fasteners, locknuts, tabs, wires and cotter pins, are installed correctly.

6.7.4.6 If the period between the preservice examination and initial system preoperational test exceeds 6 months, reexamination shall be performed in accordance with the applicable visual and functional testing requirements of this program.

6.7.5 Snubbers that are installed incorrectly or otherwise do not meet the requirements of the above requirements shall be corrected, adjusted, repaired or replaced and reexamined.

6.7.6 The preservice operability functional testing shall be performed on all snubbers prior to installation either at the manufacturer's or owner facility and, as applicable, verify the following:

6.7.6.1 The force that will maintain low velocity displacement (drag force) are within specified limits both in tension and compression.

6.7.6.2 Activation is within the specified range of velocity or acceleration in both tension and compression.

6.7.6.3 Release rate is within the specified range in tension and compression. For units specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be demonstrated.

6.7.7 Snubbers that fail the preservice operability test shall be evaluated for the cause(s) of failure(s). If a design deficiency in the snubber is found, it shall be corrected, modified, repaired, or replacement snubbers shall be retested in accordance with the above requirements.

6.7.8 Snubbers shall be tested at a load sufficient to verify the specified test parameters. Testing at less than rated load must be correlated to test parameters at rated load.

6.8 In-Service Program Requirements

6.8.1 Scope and Frequency of Visual Operability (As Found) Examinations

6.8.1.1 All snubbers within the scope of Subsection ISTD of the ASME OM Code shall be examined and evaluated per Code Case OMN-13, Revision 2 at least once every ten (10) years.

6.8.1.2 The subsequent visual examination frequency for each category or classification group of snubbers shall be determined based on the requirements of Code Case OMN-13, Revision 2.

6.8.1.3 A visual examination of Non-Safety-Related snubbers shall be performed according to the schedule determined by the Snubber Program Coordinator.

6.8.2 All snubbers shall be examined in accordance with the requirements of this program prior to conducting any maintenance, stroking, or testing, and prior to removal, for any reason, from their installed location.

6.8.3 Visual Operability (As Found) Examination Requirements

6.8.3.1 The visual as-found examination for snubbers shall be performed before the snubber is disconnected or removed for maintenance or functional testing and extends, as a minimum, from pin to pin. This examination is to determine that there are no visible indications of damage or impaired functional ability due to physical damage, leakage, corrosion, or degradation from environmental exposure or operating conditions.

6.8.3.2 The visual examination and subsequent evaluation should verify that the snubber installation will meet all of the following requirements:

a. Snubbers will be installed such that, when activated, they are capable of restraining abnormal movement.

b. Snubbers will not restrict thermal movement to the extent that unacceptable overstressing could develop in the pipe or other equipment that the snubber is designed to protect or restrain.

c. Snubbers will be free of defects that may be generic to particular designs as may be detected by visual examination.

d. Fluid supply or content shall be observed. Observation that the fluid level is equal to or greater than the minimum amount that is sufficient for actuation at its operating extension is considered to satisfy the provisions of this requirement.

e. Fluid level in hydraulic snubber reservoirs shall be sufficient to ensure that the snubber is acceptable for continued service to the next examination interval.

6.8.3.3 Any unacceptable or degraded snubber condition found during a visual examination shall have an evaluation performed by an individual knowledgeable in snubber operability requirements.

6.8.3.4 Snubbers which appear inoperable as a result of visual examinations, and have been classified as unacceptable may be reclassified as acceptable for the purpose of establishing the next visual examination interval, provided that:

a. An engineering evaluation is performed with the cause of the rejection being clearly established and remedied for that particular snubber and for other snubbers, irrespective of type, on that system that may be generically susceptible; and/or

b. The affected snubber is functionally tested in the as-found condition and determined operable per the testing requirements. For hydraulic snubbers being tested to determine operability due to low fluid, the initial test shall start with the piston at the as-found setting and be performed in the extension (tension) direction. For those snubbers that are common to more than one system, the operability of such snubbers shall be considered in assessing the surveillance schedule for each of the related systems.

6.8.3.5 If an evaluation determines that a visual examination discrepancy does not affect the operability of the snubber, and the condition is a generic case, a work order (WO) for corrective maintenance may be issued to correct any discrepancies found during the visual examination.

6.8.3.6 Snubber visual examinations will be performed utilizing a VT-3 qualified examiner and will evaluate the snubber and its associated structural connections.

6.8.4 Augmented Visual Examinations:

6.8.4.1 An augmented scope is invoked whenever a visual examination is to be performed as a supplemental scope or is outside of the Code requirements of this program.

6.8.4.2 Snubbers may be selected as a whole population, DTPG, be based on environmental conditions or selected based on preventative maintenance activities and then examined, as applicable, in conjunction with the requirements of the above requirements or as a separate work scope.

6.8.4.3 Any unacceptable or degraded snubber condition reported on the applicable examination or test report sheet, or any noted anomaly identified during the current examination period, shall have an evaluation performed by an individual knowledgeable in snubber operability requirements. This evaluation shall be performed to determine the type and cause of the visual examination discrepancy and effect on the operability of the snubber and related component(s). If the condition is determined as generic, then additional examinations may be required, or if an isolated case, a WO may be issued to correct any discrepancies found. The results of these additional examinations do not impact the visual examination frequency of the Safety-Related and Safety Significant examination program.

6.8.5 Scope and Frequency of Snubber Functional Testing:

6.8.5.1 During or before each refueling outage a representative sample of snubbers shall be functionally tested according to the schedule determined by this program to verify in-service operability performance. Snubber testing may begin no earlier than 60 days prior to a scheduled refueling outage.

6.8.5.2 Snubbers shall be tested in their as-found condition, to the fullest extent practicable, with regard to the required test parameters and test methods and removal procedures, which shall not alter the condition of a snubber to the extent that the results do not represent the as-found snubber condition.

6.8.5.3 A 10% sample of the hydraulic Steam Generator (SG) snubbers at MPS2 are bench tested per procedure SP21174, "Snubber Functional Test Surveillance" tested as a separate DPTG (DTPG C).

6.8.5.4 In addition to bench testing, a sample of the SG hydraulic snubbers, one or more of these snubbers will have its fluid monitored for particulates, viscosity, and moisture content per SP 21175, 'Unit 2 Snubber Service Monitoring' procedure.

6.8.5.5 Bench-type testing of pipe snubbers is performed by securing the snubber at both ends and, as such, requires the complete removal of the snubber from a plant location.

6.8.5.6 When the as-found visual examination for operability or visual examination is to be performed during a refueling outage, it shall be performed before the snubber is removed for functional testing.

6.8.5.7 A representative sample from each 10% sample plan DTPG is selected that, as practicable, shall include representation from the DTPG based on the significant features (i.e., the various designs, configurations, operating environments, sizes, and capacities) and based on the ratio of the number of snubbers of each significant feature, to the total number of snubbers in the DTPG. Selection of the representative snubbers shall be random.

6.8.5.8 The content of the initial sample plan shall be established prior to an outage. Changes can be made to this content before or after testing begins, however, the representation of the sample based on the significant features (i.e., the various designs, configurations, operating environments, sizes, and capacities) shall not be changed. If the content of the sample is changed after testing begins, the Snubber Program Coordinator shall document a justification for each snubber substitution.

6.8.5.9 The program identifies, for testing as an augmented scope, locations that had failed snubbers during the previous functional test cycle. These shall be re-tested, unless the cause of the failure has been clearly established and corrected. Testing and failure of these augmented functional tests does not cause an increase in the initial sample size as these additional tests are outside of the surveillance requirements and identified as an augmented scope.

6.8.5.10 A DTPG for Non-Safety-Related snubbers may be tested to as part of a good engineering practice to provide assurance of structural reliability that has not been satisfied by the visual operability examination. Any functional scope for Non-Safety-Related snubbers shall be independent of the requirements for Safety-Related snubbers and the results shall not affect the Safety-Related program. Instead, results shall be evaluated on an individual basis and any corrective actions taken shall be applied, as applicable, only to this separate scope.

6.8.5.11 For each snubber found to be unacceptable after operability testing, an additional 5% sample lot of snubbers is required to be tested and the applicable corrective action taken.

6.8.5.12 Replacement snubbers and snubbers that have repairs which might affect the functional test sample criteria shall be tested to meet the functional test requirements before installation. Spare snubbers shall

have been functionally tested within the last 12 months prior to installation.

6.8.5.13 All inservice test data acquired since implementation of the requirements of Code Case OMN-13 shall be evaluated for indications of snubber degradation or other anomalies. This includes a review of test traces, where available. The results of this evaluation shall be used to identify snubbers that are subject to progressive degradation and to identify severe operating environments not previously identified.

6.8.6 Functional Testing Sample Plans:

6.8.6.1 Testing will be conducted for each defined test plan group (DTPG) defined in the tables below. Each DTPG will be tested using the 10% sample plan as described in ISTD-5300 of the ASME OM Code.

a. The representative samples selected from each DTPG for the initial functional test will be selected from the snubbers of each group and reviewed before beginning the testing. This review will ensure, as far as practical, that they are representative of the various configurations, operating environments, range of size, and capacity of snubbers of each DTPG.

b. All snubbers subject to the functional test requirements shall be grouped according to the DTPGs defined in the table below:

Snubber DTPG's

DTPG	Group
ATTACHMENT 1 DTPG A	Hydraulic Pipe Snubbers
ATTACHMENT 2 DTPG B	Mechanical Snubbers
ATTACHMENT 3 DTPG C	Hydraulic Steam Generator Snubbers
ATTACHMENT 4 DTPG D1	All Hydraulic Snubbers That Would Not Have an Adverse Effect on Safety-Related Systems or Components
ATTACHMENT 5 DTPG D2	All Mechanical Snubbers That Would Not Have an Adverse Effect on Safety-Related Systems or Components

6.8.6.2 Snubbers that do not meet the acceptance criteria for functional testing shall be evaluated to determine the cause of the failure and unacceptable snubber(s) shall be categorized into test failure mode groups (FMG) to determine corrective actions.

6.8.6.3 For each snubber from an initial DTPG sample that does not meet the functional test acceptance criteria, an additional sample of at least 5% of the DTPG population shall be tested. For each snubber that fails in an additional 5% sample group, a new 5% sample group shall be selected and functionally tested. Testing shall continue until the mathematical formula $N \geq 0.1n + C(0.1n/2)$ is satisfied where C = the total number of unacceptable snubbers found in the DTPG (excluding those counted for FMG tests), N = the total number of snubbers tested that were selected from the DTPG and n = the number of snubbers in the DTPG.

As far as practical, the additional samples should include:

a. Snubbers of the same size and manufacturer's design.

b. Snubbers from the same system, including those snubbers immediately adjacent to the unacceptable snubbers.

c. Other piping systems having the same operating conditions; such as temperature, humidity, vibration and radiation.

d. Snubbers that are previously untested.

6.8.6.4 If additional sampling is required due to failure of only one type and size of snubber, the functional testing results shall be reviewed at the time to determine if additional samples should be limited to the type of snubber that has failed the functional testing.

6.8.7 Functional Operability Test Acceptance Criteria:

6.8.7.1 The snubber functional test shall verify, as applicable, that:

a. The force that will maintain low velocity displacement (drag force) is within specified limits both in tension and compression.

b. Activation is within the specified range of velocity or acceleration in both tension and compression.

c. Release rate is within the specified range in tension and compression. For units specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be demonstrated.

6.8.7.2 Snubbers shall be tested at a load sufficient to verify the specified test parameters. Testing at less than rated load must be correlated to test parameters at rated load.

6.8.7.3 Snubbers that fail the functional test acceptance criteria shall be repaired or replaced. Snubbers that have repairs shall be tested to meet the functional test criteria before installation and meet the requirements of the MPS2 Repair and Replacement Program.

6.8.8 Functional Test Failure Analysis

6.8.8.1 Snubbers that do not meet the acceptance criteria for functional testing shall be evaluated to determine the cause of the failure and unacceptable snubber(s) shall be categorized into test failure mode groups (FMG) to determine corrective actions. These FMGs will be used, as applicable, in selecting snubbers to be tested in an effort to determine the acceptability of other snubbers, which may be subject to the same failure mode.

a. Hydraulic snubbers typically fail due to loss of fluid, which results in no restraining action. This is referred to as failing soft. Snubbers may also fail due to loss of bleed capacity. This will only be evident if the snubber has been activated.

b. Sometimes the cause of an unsatisfactory snubber condition can be determined by external examination, such as the existence of paint on moving parts. Visual examinations and measurements, coupled with the knowledge of snubber operational details, are usually sufficient to determine the cause of the failure.

c. However, in some cases, the snubber will require disassembly to determine the cause of failure and whether a part failed from an overload or fatigue, in tension or compression, etc. Additional investigation is usually required to determine what caused this defect to develop. Such causes may be improper maintenance, improper design or operation under excessive vibration from the attached component.

6.8.8.2 For the snubbers that do not meet the acceptance criteria, an engineering evaluation shall also be performed on the component or system to which the unsatisfactory snubbers are attached. The purpose of this engineering evaluation is to determine if the components to which the unsatisfactory snubbers are attached were adversely affected by the failure of the snubbers in order to ensure that the component or system remains capable of meeting the designed service.

6.8.9 Failure Mode Groups.

6.8.9.1 After determination by an engineering evaluation that a snubber is unacceptable, it may be categorized into an examination or testing FMG. An FMG shall include all unacceptable snubbers that have a given failure and all other snubbers evaluated to be subject to the same failure. The FMGs shall be separate and distinct for each test scope.

When it is decided that FMGs will be used, the following FMGs should be considered:

a. Design or manufacturing

b. Application Induced

c. Maintenance, Repair or Installation

d. Transient Dynamic Event

Other FMGs may be considered, if warranted.

6.8.9.2 Once an FMG has been established, any snubber(s) identified in that FMG may be separated for continued testing from the original work scope. The new defined and independent FMG will remain until the applicable corrective action has been completed.

6.8.9.3 In the event a snubber(s) is included in more than one FMG, it shall be counted in each, and subject to the schedule, subsequent schedule and corrective action of each test FMG.

6.8.9.4 For a Design or Manufacturing and Application Induced FMG, the following corrective action shall apply:

a. All snubbers in the FMG shall be replaced or modified. The replacement or modified snubbers shall be reclassified as acceptable and the applicable reexamination performed; OR

b. All unacceptable snubbers in the Application-Induced FMG shall be replaced or repaired to an acceptable condition and the environment or applications shall be made compatible with the design parameters for all snubbers within this FMG.

No additional testing is required provided the above corrective actions have been taken.

c. Design or Manufacturing; Maintenance, Repair or Installation; and Application-Induced Failure Mode. When the corrective actions of 6.8.9.4 are not applicable, or are not taken, the following applies:

a Tests in the FMG shall be based both on the number of unacceptable snubbers found in the DTPG and determined by the failure evaluation to be appropriate for establishing the FMG, and on the number of unacceptable snubbers subsequently found in the FMG.

b Testing shall continue until the mathematical formula $N_F \geq C_F(0.1n/2)$ is satisfied where C_F = the total number of unacceptable snubbers in the FMG, plus those found in

the DTPG and used to establish the FMG, N_F = all snubbers selected and tested from the FMG after the FMG was established from the DTPG and n = the number of snubbers in the DTPG, or all the snubbers in the FMG have been tested.

6.8.9.5 Transient Dynamic Event FMG Corrective Action. No additional tests of the snubbers in this group are required. However, the operational readiness of all snubbers in the FMG shall be evaluated by stroking or testing. All operationally ready snubbers in this FMG shall be eligible for selection and testing for other appropriate FMGs and the DTPG.

6.8.9.6 Deletions of Unacceptable Snubbers. Snubbers may be deleted based on analysis of the affected piping system. When an unacceptable snubber is deleted, the deleted snubber shall be considered in its respective examination population, examination category, or FMG for determining the corrective action.

6.8.10 Snubber Service Life Monitoring Program

6.8.10.1 The object of service life monitoring is to identify service environment conditions and maintenance functions (rebuilds, handling, replacements, etc.) that can adversely affect snubber performance. Service life varies with manufacturer recommendations, design limits, actual conditions and materials, and should be adjusted based on plant experience and trending to ensure that the snubber(s) periodically undergo a performance evaluation.

6.8.10.2 Initial snubber service life shall be predicted based on manufacturer's recommendation or design review.

6.8.10.3 Service life shall be evaluated at least once each fuel cycle, and increased or decreased, if warranted. Evaluation shall be based upon technical data from representative snubbers that have been in service in the plant, or other information related to service life. If the evaluation indicates that service life will be exceeded before the next scheduled system or plant outage, one of the following actions shall be taken:

a. the snubber shall be replaced with a snubber for which the service life will not be exceeded before the next scheduled system or plant outage

b. technical justification shall be documented for extending the service life to or beyond the next scheduled system or plant outage

c. the snubber shall be reconditioned such that its service life will be extended to or beyond the next scheduled system or plant outage

6.8.10.4 The maximum expected service life for various seals, springs, and other critical parts shall be extended or shortened based on monitored

test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be operable.

6.8.10.5 The performance of snubbers is indicated by the results of functional tests. Tracking and trending snubber performance may be required relating to snubbers installed in the same location and for snubbers that failed previous outage tests, due to location variables or unknown causes. When the same snubber has been tested several times, its test results may be reviewed to determine whether a trend is developing or if the snubber test values are degrading.

a. Activation, bleed rate and drag are parameters available for trending hydraulic snubber performance. The results of the next functional test can be compared to the last test to determine if a drift of parameter values has occurred. If the drift is within acceptance limits, the snubber may be determined to be degraded or acceptable for continued use without the need for rebuild or replacement.

b. One of the primary problems associated with mechanical snubbers is the drying or hardening of its grease. This condition occurs over time and can be exasperated by environmental conditions such as high temperature. Additionally, mechanical snubbers are susceptible to high vibration conditions. Snubbers installed in locations where high cycle vibration is present are more prone to failures and to wear on the internal parts. Snubbers located in these locations will need to be tested on a more frequent basis.

c. The static and dynamic seals, moving parts and fluid in a hydraulic snubber are subject to wear or other degradation. The piston, piston rod, cylinder and glands are also subject to wear. These and other parts should be examined carefully each time seals are replaced or each time replacements are made to prevent leakage or other conditions of in-operability before the next snubber rebuild.

d. Hydraulic fluid, if reused, should be checked at rebuild time for moisture content and particulate to determine whether the fluid should be filtered to bring it back into specification or disposed.

6.8.10.6 A record of the service life of each snubber in the program shall be maintained. The snubber service life record shall include manufacturer, model, serial number, present plant location and installation service life end date for each applicable snubber. When snubbers are rebuilt or overhauled, the service life shall be updated which will provide future statistical bases for consideration of snubber service life.

6.8.10.7 Service Life and Snubber Replacement

a. The hydraulic pipe snubber population at MPS2 consists primarily of Grinnell hydraulic snubbers. The limiting component for a hydraulic snubber is the snubber seals. Therefore, the seal life is the main contributor for determining the service life. Seal life is nominally 10 years and starts at completion of each individual snubber refurbishment. This includes the overhaul of its remote reservoir, where applicable. Replacement with a new Grinnell snubber will reset the 10 year nominal service life.

b. The remaining hydraulic pipe snubbers at MPS2 are Lisega snubbers. Lisega snubber service life is nominally 20 years. Service life starts at completion of an overhaul or replacement by a new snubber.

c. The mechanical snubber population at MPS2 consists of Pacific Scientific (PSA) snubbers. The initial indicated service life of these snubbers was established at 480 months (40 years) based on the manufacturers design life with no repetitive maintenance required. However, with preventative maintenance, inspections and functional testing, the service life for PSA snubbers can be extended past 40 years. The mechanical snubbers at MPS2 are inspected, regreased, and refurbished nominally every four cycles. The refurbish interval is adjusted based on functional testing and visual inspections. The service life is noted in the Snubber Service Life Record.

d. The Grinnell hydraulic snubbers attached to the steam generators have been evaluated to 16.2 years per LEC-854-R1. Service Life starts at completion of an overhaul or by being replaced with a new snubber.

e. The limiting component for the Anvil EPS (formally ITT Grinnell) hydraulic snubbers is the elastomer seals. The seal life is the main contributor for determining the service life. Seal life for Anvil snubbers is 23 years, unless environmental conditions require adjustment of the service life to meet the requirements of procedure SP-21175, Unit 2 Snubber Service Life Monitoring.

6.8.10.8 Causes for any snubber failures (regardless of the means or time of discovery) shall be determined, documented, and considered in establishing or reestablishing service life.

6.8.11 Maintenance

6.8.11.1 Any maintenance function which could affect the operability of a snubber shall be conducted using MPS2 approved Maintenance Procedures.

6.8.12 Spare Snubbers

6.8.12.1 All snubbers not installed in an active location within the plant are considered spares. Spares shall be rebuilt using safety related parts and functionally tested in accordance with approved procedures and tagged with the date and results of the functional test.

6.8.12.2 Spares may be used in all locations where a snubber of the same manufacturer bore and stroke size, requires a change out.

6.8.12.3 Storage should be in designated areas that provide protection from exposure to airborne and windblown contaminants. When being moved from storage, they should be protected from damage and the possibility of moisture, liquids or other activities that might result in foreign materials entering or damaging the snubber. Spare snubbers shall have been functionally tested within the last 12 months prior to installation.

6.8.13 Replacement or Modified Snubbers

6.8.13.1 Snubbers shall not be adjusted, maintained, or repaired before an examination or test specifically to meet the examination or test requirements.

6.8.13.2 Snubbers that are maintained or repaired by removing or adjusting a snubber part that can affect the results of tests shall be examined and tested with the applicable procedures before returning to service. The requirements selected shall ensure that the parameters that may have been affected are verified to be acceptable.

6.8.13.3 Replacement or modified snubber(s) shall have a proven suitability for the application and environment and shall be examined and tested in accordance with written procedures and verified to be acceptable.

7.0 EQUIPMENT AND PERSONNEL REQUIREMENTS

7.1 Instrumentation and Test Equipment

7.1.1 Functional Test Equipment

7.1.1.1 Instrumentation and test equipment used in the examination and testing of snubbers shall be calibrated and have the range and accuracy necessary to demonstrate conformance to the test requirements as stated in the applicable testing procedures.

7.1.1.2 The test machine presently used at MPS2 is the Barker Diacon Test Machine. An equivalent approved testing machine is acceptable for the functional preservice and inservice tests provided that it is capable of testing to verify that:

a. Free movement force will initiate motion of the snubber rod in both tension and compression during low velocity displacements, and

b. Activation is achieved within the specified range of velocity or acceleration in both tension and compression, and

c. Snubber bleed or release rate is within the specified range in compression or tension.

7.2 Training and Personnel Qualifications

7.2.1 Personnel who are required to witness, perform, and/or evaluate test results will be trained and certified, as applicable, in accordance with approved site procedures.

7.2.2 Craft and maintenance personnel involved with snubber related work are to be qualified in accordance with the installation and removal procedures. In addition, personnel performing the functional testing of the snubbers must be qualified on and with the operation of the machines, and have a working knowledge of snubber design and test parameters.

7.2.3 Personnel performing snubber evaluations shall be knowledgeable in snubber operability requirements, design, test parameters, failure and degradation mechanisms and maintain a knowledge of current industry events and trends.

7.2.4 Personnel performing visual examinations must be VT-3 qualified.

8.0 ISOMETRIC, LOCATION AND COMPONENT DRAWINGS

8.1 Snubber drawings are available for each snubber location. These drawings are to be used in locating each examination location. Additionally, these drawings provide installation and inspection information for each snubber location.

ATTACHMENT 1

DPTG "A" (Hydraulic Pipe Snubbers)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
312015A	RB	MS	Grinnell	4 x 5
312015B	RB	MS	Grinnell	4 x 5
312016A	RB	MS	Grinnell	4 x 5
312016B	RB	MS	Grinnell	10 x 5
312017	RB	MS	Grinnell	10 x 5
312018	RB	MS	Grinnell	8 x 5
312019	RB	MS	Grinnell	8 x 5
401008	AB	CS	Grinnell	1.5 x 5
401024	AB	HPSI	Grinnell	2.5 x 5
402009	AB	LPSI	Grinnell	1.5 x 5
402022	AB	LPSI	Grinnell	2.5 x 5
402056A	AB	CS	Grinnell	1.5 x 5
402056B	AB	CS	Grinnell	1.5 x 5
402083	AB	CS	Grinnell	1.5 x 5
402100	RB	SIT	Grinnell	2.5 x 5
402113A	RB	SDC	Grinnell	3.25 x 5
402113B	RB	SDC	Grinnell	3.25.x 5
402115A	RB	SDC	Grinnell	2.5 x 5
402115B	RB	SDC	Grinnell	2.5 x 5
403068	AB	SFP	Grinnell	2.5 x 5
403090	AB	SFP	Grinnell	2.5 x 5
405388	EB	MS	Grinnell	2.5 x 5
410004A	RB	SIT	Grinnell	1.5 x 5
410004B	RB	SIT	Grinnell	1.5 x 5
410012	RB	SIT	Grinnell	2.5 x 5
410014	RB	SIT	Grinnell	3.25 x 5
410015	RB	SIT	Grinnell	2.5 x 5
410017	RB	SIT	Grinnell	2.5 x 5
410019	RB	SIT	Grinnell	2.5 x 5
410021	RB	SIT	Grinnell	3.25 x 5
410022	RB	SIT	Grinnell	2.5 x 5
410027	RB	SIT	Grinnell	3.25 x 5
410028	RB	SIT	Grinnell	6 x 5
410029	RB	SIT	Grinnell	6 x 5
410031A	RB	SIT	Grinnell	2.5 x 5
410031B	RB	SIT	Grinnell	2.5 x 5
410061	RB	SDC	Grinnell	2.5 x 5
410065A	RB	SIT	Grinnell	2.5 x 5

DPTG "A" (Hydraulic Pipe Snubbers)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
410065B	RB	SIT	Grinnell	2.5 x 5
410067	RB	SIT	Grinnell	2.5 x 5
410083	RB	SIT	Grinnell	2.5 x 5
410086A	RB	SIT	Grinnell	5 x 5
410086B	RB	SIT	Grinnell	3.25 x 5
410086C	RB	SIT	Grinnell	3.25 x 5
410103	RB	SIT	Grinnell	3.25 x 5
412002	RB	MS	Lisega	309253
412003	EB	MS	Grinnell	5 x 5
412004	EB	MS	Grinnell	6 x 10
412013	RB	FW	Grinnell	3.25 x 5
412015	RB	FW	Grinnell	3.25 x 5
412016A	EB	MS	Grinnell	6 x 5
412016B	EB	MS	Grinnell	6 x 5
412018	RB	FW	Grinnell	3.25 x 5
413009	EB	MS	Grinnell	2.5 x 5
413018A	EB	MS	Grinnell	8 x 5
413018B	EB	MS	Grinnell	8 x 5
413028	EB	MS	Grinnell	2.5 x 5
413029A	EB	MS	Grinnell	2.5 x 5
413029B	EB	MS	Grinnell	2.5 x 5
413030A	EB	MS	Grinnell	3.25 x 5
413030B	EB	MS	Grinnell	3.25 x 5
413031	EB	MS	Grinnell	6 x 5
413032A	EB	MS	Grinnell	8 x 5
413032B	EB	MS	Grinnell	8 x 5
413081	EB	MS	Grinnell	1.5 x 5
413082A	EB	MS	Grinnell	1.5 x 5
413082B	EB	MS	Grinnell	1.5 x 5
413172	EB	FW	Grinnell	3.25 x 5
413179	EB	FW	Grinnell	4 x 5
413181	EB	FW	Grinnell	2.5 x 5
413192A	EB	FW	Grinnell	3.25 x 5
413192B	EB	FW	Grinnell	3.25 x 5
413199A	EB	FW	Grinnell	2.5 x 5
413199B	EB	FW	Grinnell	2.5 x 5
416014A	RB	CS	Grinnell	1.5 x 5
416014B	RB	CS	Grinnell	1.5 x 5
416020	RB	CS	Grinnell	2.5 x 5
416025	RB	CS	Grinnell	2.5 x 5

DPTG "A" (Hydraulic Pipe Snubbers)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
416027	RB	CS	Grinnell	2.5 x 5
427075	AB	MS	Grinnell	2.5 x 5
427097A	AB	SW	Grinnell	2.5 x 5
427097B	AB	SW	Grinnell	2.5 x 5
505166A	AB	RBCCW	Grinnell	1.5 x 5
505166B	AB	RBCCW	Grinnell	1.5 x 5
510017	RB	SIT	Grinnell	3.25 x 5
510018	RB	SIT	Grinnell	3.25 x 5
513023A	AB	MS	Grinnell	1.5 x 5
513023B	AB	MS	Grinnell	1.5 x 5
512001	AB	MS	Anvil	1

ATTACHMENT 2

DPTG "B" (Mechanical Snubbers)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
302092	AB	LPSI	Basic-PSA	PSA-1
310022	RB	SIT	Basic-PSA	PSA-1
401014	AB	LPSI	Basic-PSA	PSA-1
401016A	AB	LPSI	Basic-PSA	PSA-1
401016B	AB	LPSI	Basic-PSA	PSA-1
401018	AB	HPSI	Basic-PSA	PSA-3
401019A	AB	HPSI	Basic-PSA	PSA-1
401019B	AB	HPSI	Basic-PSA	PSA-1
404020A	AB	HPSI	Basic-PSA	PSA-1/4
404020B	AB	HPSI	Basic-PSA	PSA-1/4
408009	RB	RCS	Basic-PSA	PSA-3
408010	RB	RCS	Basic-PSA	PSA-3
408021A	RB	RCS	Basic-PSA	PSA-1
408021B	RB	RCS	Basic-PSA	PSA-1
408022	RB	RCS	Basic-PSA	PSA-1
408029	RB	RCS	Basic-PSA	PSA-1/4
410007	RB	SIT	Basic-PSA	PSA-1
410037A	RB	RCS	Basic-PSA	PSA-1
410037B	RB	RCS	Basic-PSA	PSA-1
410040	RB	RCS	Basic-PSA	PSA-1
410040A	RB	RCS	Basic-PSA	PSA-1
410046	RB	RCS	Basic-PSA	PSA-3
410049	RB	RCS	Basic-PSA	PSA-1
410054	RB	RCS	Basic-PSA	PSA-3
410059	RB	RCS	Basic-PSA	PSA-1
410062A	RB	SDC	Basic-PSA	PSA-3
410062B	RB	SDC	Basic-PSA	PSA-3
410092	RB	SIT	Basic-PSA	PSA-1
413064A	EB	MS	Basic-PSA	PSA-3
413064B	EB	MS	Basic-PSA	PSA-3
413132A	EB	MS	Basic-PSA	PSA-3
413132B	EB	MS	Basic-PSA	PSA-3
413135A	EB	MS	Basic-PSA	PSA-1
413135B	EB	MS	Basic-PSA	PSA-1
414001A	RB	RCS	Basic-PSA	PSA-1

DPTG "B" (Mechanical Snubbers)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
414001B	RB	RCS	Basic-PSA	PSA-1
414002A	RB	RCS	Basic-PSA	PSA-3
414002B	RB	RCS	Basic-PSA	PSA-3
414006A	RB	RCS	Basic-PSA	PSA-3
414006B	RB	RCS	Basic-PSA	PSA-3
414009A	RB	RCS	Basic-PSA	PSA-3
414009B	RB	RCS	Basic-PSA	PSA-3
414016A	RB	RCS	Basic-PSA	PSA-3
414016B	RB	RCS	Basic-PSA	PSA-3
414021A	RB	RCS	Basic-PSA	PSA-3
414021B	RB	RCS	Basic-PSA	PSA-3
414029A	RB	RCS	Basic-PSA	PSA-3
414029B	RB	RCS	Basic-PSA	PSA-3
414029C	RB	RCS	Basic-PSA	PSA-1
414029D	RB	RCS	Basic-PSA	PSA-1
414032A	RB	RCS	Basic-PSA	PSA-1
414032B	RB	RCS	Basic-PSA	PSA-1
414033A	RB	RCS	Basic-PSA	PSA-1
414033B	RB	RCS	Basic-PSA	PSA-1
414035	RB	RCS	Basic-PSA	PSA-1
414040	RB	RCS	Basic-PSA	PSA-1
414041	RB	RCS	Basic-PSA	PSA-1
414044	RB	RCS	Basic-PSA	PSA-1
416016A	RB	CS	Basic-PSA	PSA-1/4
416016B	RB	CS	Basic-PSA	PSA-1/4
416021	RB	CS	Basic-PSA	PSA-1/2
416022	RB	CS	Basic-PSA	PSA-1/4
416032A	RB	CS	Basic-PSA	PSA-1
416032B	RB	CS	Basic-PSA	PSA-1
427103	AB	SW	Basic-PSA	PSA-3
427106	AB	SW	Basic-PSA	PSA-35
427115A	AB	SW	Basic-PSA	PSA-3
427115B	AB	SW	Basic-PSA	PSA-3
450058A	AB	RB	Basic-PSA	PSA-1/2
450058B	AB	RB	Basic-PSA	PSA-1/2
491232K DP-307	RB	MS	Basic-PSA	PSA-1

DPTG "B" (Mechanical Snubbers)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
491277B DP-781	EB	HPSI	Basic-PSA	PSA-1
491280A DP-537	EB	HPSI	Basic-PSA	PSA-1/2
491354C DP-109	RB	MS	Basic-PSA	PSA-1/4
491354G DP-107	RB	MS	Basic-PSA	PSA-1/4
491356G DP-023	RB	MS	Basic-PSA	PSA-1/4
491357E DP-125A	RB	MS	Basic-PSA	PSA-1/4
491357E DP-125B	RB	MS	Basic-PSA	PSA-1/4
491358E DP-190	RB	MS	Basic-PSA	PSA-1/4
491361D DP-253	RB	MS	Basic-PSA	PSA-1/4
491369G DP-038	AB	CVCS	Basic-PSA	PSA-1/4
491375D	EB	CVCS	Basic-PSA	PSA-1/4
491389K DP-034	RB	CVCS	Basic-PSA	PSA-1
491389M DP-501	RB	CVCS	Basic-PSA	PSA-1/2
491424A DP-411	RB	CVCS	Basic-PSA	PSA-1/4
491437G DP-152	RB	CVCS	Basic-PSA	PSA-1/4
491505G	EB	MS	Basic-PSA	PSA-1
501023A	AB	CS	Basic-PSA	PSA-1
501023B	AB	CS	Basic-PSA	PSA-1L
501024	AB	CS	Basic-PSA	PSA-1
502024A	AB	SDC	Basic-PSA	PSA-3
502024B	AB	SDC	Basic-PSA	PSA-3
502026A	AB	LPSI	Basic-PSA	PSA-1/2
502026B	AB	LPSI	Basic-PSA	PSA-1/2
502035	AB	LPSI	Basic-PSA	PSA-3
507002A	RB	SIT	Basic-PSA	PSA-3
507002B	RB	SIT	Basic-PSA	PSA-3
510004	RB	SIT	Basic-PSA	PSA-1
512002	AB	MS	Basic-PSA	PSA-1/2
512003	AB	MS	Basic-PSA	PSA-1/2
513008	AB	MS	Basic-PSA	PSA-1
513036	AB	MS	Basic-PSA	PSA-1
513040	AB	MS	Basic-PSA	PSA-1
513041	AB	MS	Basic-PSA	PSA-1
513042	AB	MS	Basic-PSA	PSA-1
514001	RB	RCS	Basic-PSA	PSA-10
527071A	AB	SW	Basic-PSA	PSA-3

DPTG "B" (Mechanical Snubbers)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
527071B	AB	SW	Basic-PSA	PSA-3
527072A	AB	SW	Basic-PSA	PSA-3
527072B	AB	SW	Basic-PSA	PSA-3
60240	RB	RHV	Basic-PSA	PSA-1/2
60365 DP-633	RB	MS	Basic-PSA	PSA-1
60375 DP-816	RB	MS	Basic-PSA	PSA-1
60390 DP-086	RB	MS	Basic-PSA	PSA-1
60606	RB	RCS	Basic-PSA	PSA-3
70037 DP-208	AB	MS	Basic-PSA	PSA-1
70038 DP-215	AB	MS	Basic-PSA	PSA-1
70080	EB	CVCS	Basic-PSA	PSA-1/4
70087	AB	RWST	Basic-PSA	PSA-1
70100	AB	HPSI	Basic-PSA	PSA-1/4

ATTACHMENT 3

DPTG "C" (Hydraulic Steam Generator Snubbers)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
SG1-SS1	RB	SG	Grinnell	10 x 5
SG1-SS2	RB	SG	Grinnell	10 x 5
SG1-SS3	RB	SG	Grinnell	10 x 5
SG1-SS4	RB	SG	Grinnell	10 x 5
SG1-SS5	RB	SG	Grinnell	10 x 5
SG1-SS6	RB	SG	Grinnell	10 x 5
SG1-SS7	RB	SG	Grinnell	10 x 5
SG1-SS8	RB	SG	Grinnell	10 x 5
SG2-SS1	RB	SG	Grinnell	10 x 5
SG2-SS2	RB	SG	Grinnell	10 x 5
SG2-SS3	RB	SG	Grinnell	10 x 5
SG2-SS4	RB	SG	Grinnell	10 x 5
SG2-SS5	RB	SG	Grinnell	10 x 5
SG2-SS6	RB	SG	Grinnell	10 x 5
SG2-SS7	RB	SG	Grinnell	10 x 5
SG2-SS8	RB	SG	Grinnell	10 x 5

ATTACHMENT 4

DPTG "D1" (All Hydraulic Snubbers That Would Not Have an Adverse Effect on Safety Related Systems or Components)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
413021		MS	Grinnell	6 x 5
413036		MS	Grinnell	3.25 x 5
413039		MS	Grinnell	4 x 5
490001A		MS	Grinnell	5 x 5
490001B		MS	Grinnell	5 x 5
490003A		MS	Grinnell	5 x 5
490003B		MS	Grinnell	5 x 10
490004A		MS	Grinnell	3.25 x 5
490004B		MS	Grinnell	3.25 x 5
490005B		MS	Grinnell	3.25 x 5
490006		MS	Grinnell	5 x 5
490007		MS	Grinnell	8 x 10
490008	TB	MS	Lisega	-
490018A		MS	Grinnell	2.5 x 5
490018B		MS	Grinnell	2.5 x 5
490019		MS	Grinnell	2.5 x 5
490031	TB	MS	Lisega	-
70032	TB	MS	Lisega	-
51119-R27A	TB	MS	Grinnell	6 x 5
51119-R27B	TB	MS	Grinnell	6 x 5
51119-R28A	TB	MS	Grinnell	6 x 5
51119-R28B	TB	MS	Grinnell	6 x 5

ATTACHMENT 5

DPTG "D2" (All Mechanical Snubbers That Would Not Have an Adverse Effect on Safety Related Systems or Components)				
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**
490010A	TB	MS	Basic-PSA	PSA-3
490010B	TB	MS	Basic-PSA	PSA-3
490010C	TB	MS	Basic-PSA	PSA-3
491505G	EB	MS	Basic-PSA	PSA-1

ENCLOSURE 2

Millstone Power Station Unit 3
Fourth Interval Inservice Testing Program

Attachment 1	Summary of Proposed Relief Requests
Attachment 2	Proposed Relief Requests
Attachment 3	Inservice Testing Program Plan for Pumps and Valves, Fourth Interval
Attachment 4	Inservice Testing Program Plan for Snubbers, Fourth Interval

ATTACHMENT 1

Millstone Power Station Unit 3
Inservice Testing Program

Summary of Proposed Relief Requests for the Fourth 10-Year Interval

MILLSTONE POWER STATION UNIT 3
DOMINION ENERGY NUCLEAR CONNECTICUT, INC.

Millstone Power Station Unit 3

Inservice Testing Program

Summary of Proposed Relief Requests for the Fourth 10 Year Testing Interval

Interval 4 Proposed Relief Request	Relief Request Description	Interval 3 Relief Request	Comments
None	General program relief to use OMN-20, which allows for the application of a 25% grace period when scheduling tests.	G-001	Previously approved relief request. Code Case OMN-20 is now incorporated by reference into the CFR.
P-01	Safety Injection Pump Cooling Pump test which allows for unmonitored flow with more conservative acceptance criteria.	P-001	Previously approved relief request that has received editorial updates.
P-02	Categorization of Residual Heat Removal (RHR) Pumps as Group A/B - Allows the RHR pumps to be tested as Group B pumps instead of Group A pumps except during refueling.	P-002	Previously approved relief request that has received editorial updates
None	Use of Code Case OMN-6 for digital instruments.	P-003	OMN-6 has been incorporated into the 2012 edition under ISTB-3510(b)(2): Digital instruments shall be selected such that the reference value does not exceed 90% of the calibrated range of the instrument.
P-03	Smooth Running Pumps. Allows any vibration point with a reference value less than 0.05 ips to be compared to an acceptable range based on 0.05 ips.	None	North Anna and Surry Power Stations have similar relief requests which have been previously approved.

Millstone Power Station Unit 3 Inservice Testing Program Summary of Proposed Relief Requests for the Fourth 10 Year Testing Interval			
Interval 4 Proposed Relief Request	**Relief Request Description**	**Interval 3 Relief Request**	**Comments**
None	Use of a Pump Curve for Testing on Reactor Plant Component Cooling Pumps	P-004	Interval 3 currently utilizes OMN-9.
P-04	Use of a Pump Curve for Testing on Reactor Plant Component Cooling Pumps	None	OMN-9 has been superseded by OMN-16, Revision 1 for interval 4. OMN-16, Revision 1 is listed in Table 2 of RG 1.192, Revision 2. The applicability for OMN-16 does not include the 2012 edition so a relief request is needed.
P-05	Appendix V – Charging Pumps	None	Charging pumps cannot meet flow requirements in Mandatory Appendix V due to test loop configuration.
None	Containment Recirc Cooler Isolation Valves Exercise Frequency	V-001	These medium risk valves will be exercised at least every 6M as allowed by III-3721.
S-01	Code Case OMN-13 – allows for extension of visual examinations on snubbers if additional requirements are met for service life monitoring.	None	This Code Case is currently in use for the snubber program, though the applicability statement does not match the 2012 edition.

ATTACHMENT 2

Millstone Power Station Unit 3
Inservice Testing Program

Proposed Relief Requests for the Fourth 10-year Interval

MILLSTONE POWER STATION UNIT 3
DOMINION ENERGY NUCLEAR CONNECTICUT, INC.

10 CFR 50.55a Request Number P-01
Millstone Power Station Unit 3

Safety Injection Pump Cooling Pump Flow Measurement

Proposed Alternative
In accordance with 10 CFR 50.55a(z)(2)

Hardship or Unusual Difficulty without a Compensating Increase in Level of Quality or Safety

1) ASME Code Component(s) Affected

Pump(s): 3CCI*P1A
3CCI*P1B
System: SAFETY INJECTION PUMP COOLING
Group: B
Class: 3

2) Applicable Code Edition and Addenda

ASME OM Code 2012 Edition

3) Applicable Code Requirement(s)

ISTB-5122, Group B Test Procedure

ISTB-5123, Comprehensive Test Procedure

Table ISTB-5121-1, Centrifugal Pump Test Acceptance Criteria

4) Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and Standards", paragraph (z)(2), relief is requested from the requirement of the ASME OM Code for measuring and recording pump flow. Due to system design and lack of an instrumented minimum flow line, total pump flow cannot be measured during the Group B or Comprehensive pump tests.

The Safety Injection Pump Cooling (CCI) System is designed to provide 9.5 gpm cooling flow to the Safety Injection Pump Lube Oil cooler. Since the original design flow was approximately 21 gpm and the pump rated flow is 25 gpm, the minimum flow recirculation line was designed with an orifice sized to pass 15 gpm. However, the minimum flow recirculation lines were not designed to allow flow measurement with either permanent or temporary instrumentation which

MPS3 Relief Request P-01 (Cont.)

would meet ASME Code requirements. These lines were also not designed to be isolated. As a result, the majority of pump flow during IST pump testing is unmonitored. Figure 1 contains a sketch of the system.

5) Proposed Alternative and Basis for Use

Since the pump head versus flow characteristics are relatively flat over the normal operating range for these pumps (see Figure 2, Pump Curve), the change in pump differential pressure from rated flow to the shutoff head condition is approximately 3.7%. As a result, a complete obstruction of this unmonitored recirculation flow could only increase pump differential (i.e. mask pump degradation) by an amount less than 3.7%. To account for a complete obstruction of pump recirculation flow, DENC proposes that the lower band required action for differential pressure be changed from 10% to 6% for both the Group B and Comprehensive tests. Any increase in recirculation flow, i.e. increase in orifice size, would result in a reduction in pump differential which would be conservatively identified as pump degradation.

Although the minimum flow recirculation lines do not have provisions for isolation, the potential to block flow by installing a blind flange in the restriction orifice was investigated. Full flow data from the GL 89-13 test program indicated that a maximum of 11 - 12 gpm is obtained with all valves wide open. Since the minimum flow requirement for the pump is 15 gpm, this flow would not be adequate to protect the pump from damage. Without the ability to isolate the minimum flow recirculation lines or to measure flow directly, the majority of CCI pump flow cannot be measured without implementing system design modifications.

DENC proposes that during IST pump tests, for the quarterly Group B, and the biennial Comprehensive pump test, the system will be throttled to a reference flow of 10 gpm and variance as allowed by the Code, with an unmonitored recirculation flow of approximately 15 gpm. The pump differential pressure will then be recorded and compared to the ASME Code lower required action limit changed from 10% to 6% for both the Group B and Comprehensive tests.

This proposed alternative to the specific requirements of ISTB-5122 and ISTB-5123 identified above will provide a method to conservatively identify pump degradation with an acceptable level of quality and safety.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fourth 10-year IST interval that is scheduled to begin on December 2, 2018.

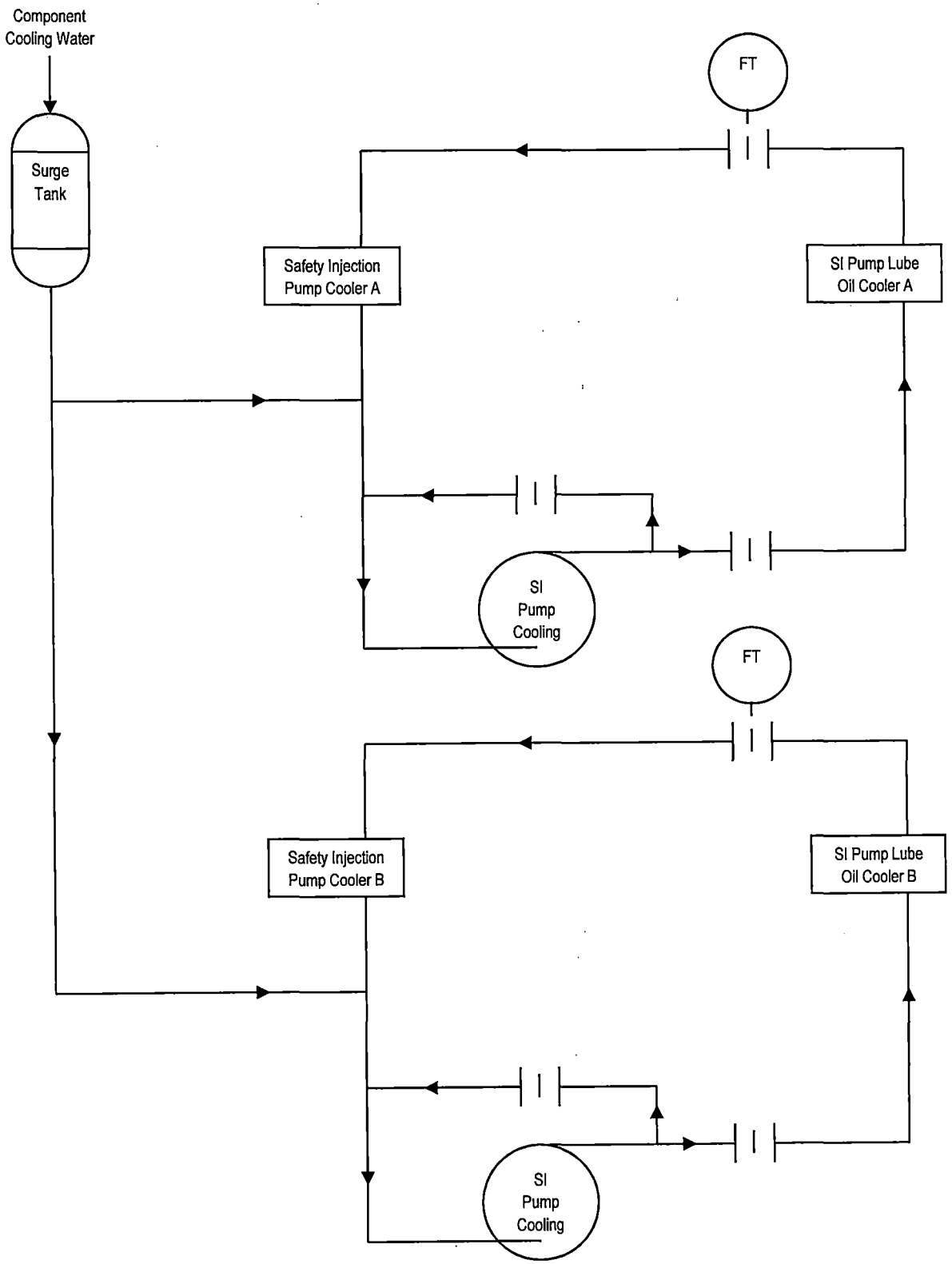
MPS3 Relief Request P-01 (Cont.)

7) Precedents

This relief request was previously approved by the NRC as P-001 for a similar request in the third ten-year IST interval at MPS3 in a letter dated October 24, 2008. (TAC Nos. MD7763 through MD7771)

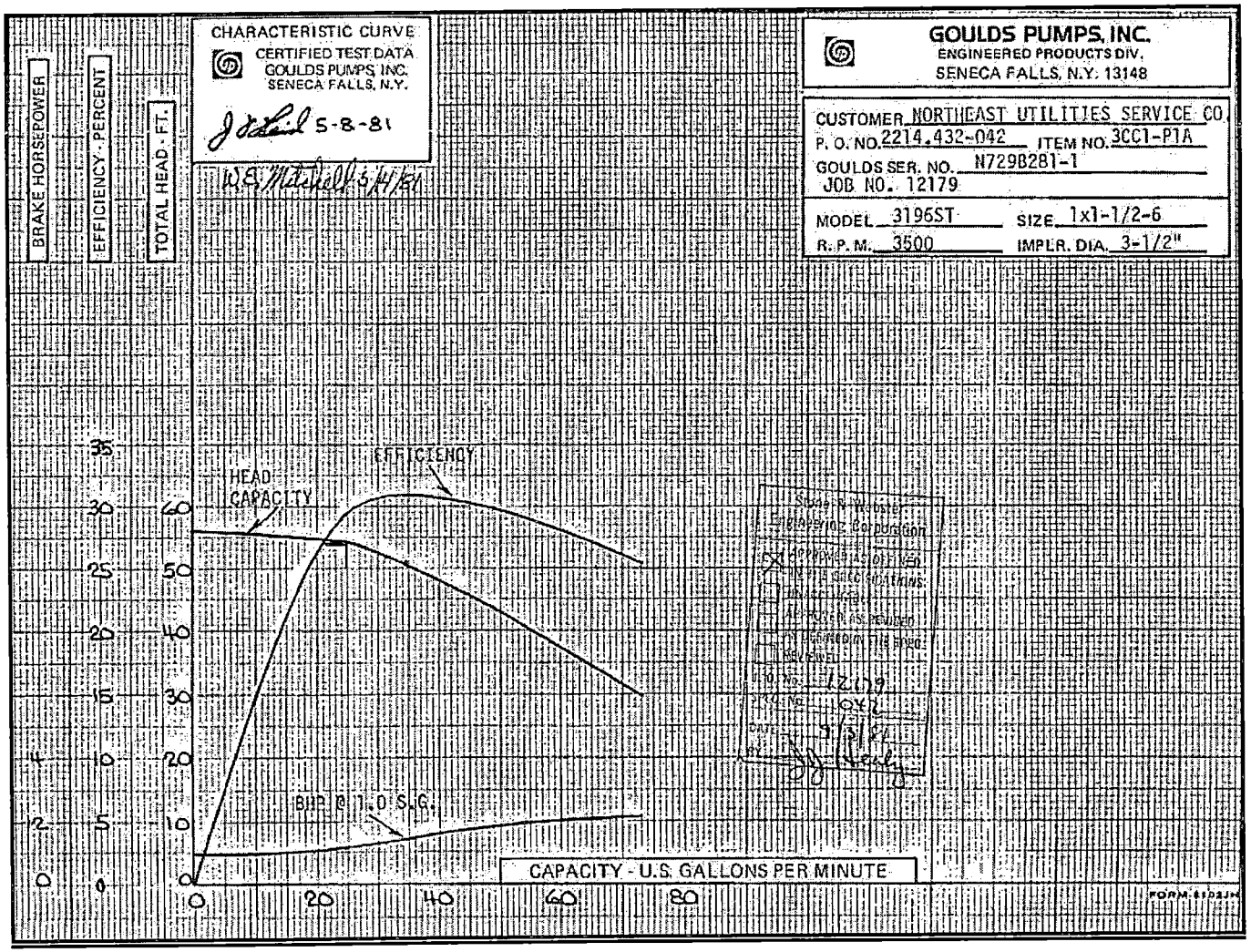
MPS3 Relief Request P-01 (Cont.)

Figure 1



MPS3 Relief Request P-01 (Cont.)

Figure 2



10 CFR 50.55a Request Number P-02
Millstone Power Station Unit 3

Categorization of the Residual Heat Removal Pumps as Group A/B

Proposed Alternative
In accordance with 10 CFR 50.55a(z)(1)

Alternative Provides an Acceptable Level of Quality and Safety

1) ASME Code Component(s) Affected

Pump(s): 3RHS*P1A
3RHS*P1B
System: RESIDUAL HEAT REMOVAL
Group: A/B
Class: 2

2) Applicable Code Edition and Addenda

ASME OM Code 2012 Edition

3) Applicable Code Requirement(s)

ISTB-1400(b) states, "identifying each pump to be tested in accordance with the rules of this Subsection, categorizing it as either a Group A or Group B pump, and listing the pumps in the plant records (see ISTB-9000). A pump that meets both Group A and Group B definitions shall be categorized as a Group A pump."

4) Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and Standards", paragraph (z)(1), relief is requested from the requirement of ASME OM Code ISTB-1400(b). This relief will result in testing the Residual Heat Removal pumps as Group B rather than Group A during power operations. This proposed relief will result in a lower potential for pump degradation due to pump wear while maintaining the capability of measuring pump performance. The basis of the relief request is that the proposed alternative would provide an acceptable level of quality and safety.

The Residual Heat Removal pumps meet the categorization requirements of Group A pumps in that they are operated routinely during plant shutdowns and refueling outages. However, these pumps also meet the requirements of Group

MPS3 Relief Request P-02 (Cont.)

B, in that during normal operation (reactor critical) they are not operated except for testing.

5) Proposed Alternative and Basis for Use

DENC proposes that the Residual Heat Removal pumps (3RHS*P1A and 3RHS*P1B) be tested as standby pumps (Group B) during power operation and as continuously operating pumps (Group A) during refueling operations. During refueling operations, the comprehensive pump test may be substituted for a quarterly Group A test that comes due. DENC also proposes that any time a comprehensive pump test is performed; the Code-required quarterly low-flow test (Group B) requirement may be deleted for that quarter. The requirements of Mandatory Appendix V, for performing a periodic verification test, will be performed each refuel outage.

These pumps are centrifugal type pumps that provide the low head safety injection function during power operation and provide reactor core cooling during the cooldown phase of shutdown cooling. During normal power operations, the Residual Heat Removal pump is in a standby condition and is considered an essential part of the Emergency Core Cooling System (ECCS). Each pump starts automatically upon receipt of a safety injection signal, taking suction from the Refueling Water Storage Tank during the injection phase of an accident. The pumps discharge to the reactor coolant system.

ASME ISTB-1400(b) states that if a pump meets both Group A and Group B definitions, it shall be categorized as a Group A pump. The Residual Heat Removal pumps are currently tested during normal operation using the minimum flow recirculation loop.

The design flow rate of each Residual Heat Removal pump is 4000 gpm. This flow rate can only be achieved during shutdown periods when injection into the reactor coolant system at a reduced pressure is possible.

Classifying these pumps as Group B during power operation minimizes the time required to perform quarterly testing. With minimum pump run-time requirements, and no requirements to record vibration levels, the length of each quarterly pump test and the accompanying unavailability time for these pumps should be reduced. Since these pumps are not operated routinely during plant operation except for required surveillance testing, there is no time or wear-related degradation mechanism that would warrant performing more detailed quarterly tests on the Residual Heat Removal pumps.

NUREG/CP-0137, Vol. 1, "Proceedings of the Third NRC/American Society of Mechanical Engineers (ASME) Symposium on Valve and Pump Testing," includes a report entitled, "Description of Comprehensive Pump Test Change to

MPS3 Relief Request P-02 (Cont.)

ASME Code, Subsection ISTB." This report details the philosophy of classifying pumps as Group A or Group B. According to the author, the intent of having different test requirements for different pump groups is to relate the requirements for the amount and degree of quarterly performance monitoring to the amount of degradation expected based on pump operation.

Testing the Residual Heat Removal pumps quarterly as Group A pumps during power operation is contrary to the philosophy of the referenced report. Quarterly Group A testing subjects these pumps to increased test requirements and performance monitoring. Also, this testing introduces the potential for more degradation due to pump wear (caused by low-flow operation) at the time when they are standby pumps and would not otherwise be subject to operation-induced degradation. Group A testing during power operation may be more detrimental to the long-term health of these components than Group B testing.

In Generic Letter (GL) 89-04, "Guidance on Developing Acceptable Inservice Testing Programs", (ADAMS Accession No. ML031150259), Position 9, the NRC determined 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 shutdown or refueling outages to perform a test of the pump under full or substantial flow conditions, the increased interval for flow measurement is an acceptable alternative to the Code requirements.

The proposed alternative to the specific requirements of ISTB-1400(b) identified above will provide adequate indication of pump performance and continue to provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(z)(1), DENC requests approval of this proposed alternative to the specific ISTB requirements identified in this request.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fourth 10-year IST interval that is scheduled to begin on December 2, 2018.

7) Precedents

This relief request was previously approved by the NRC as P-002 for a similar request in the third ten-year interval at MPS3 in a letter dated October 24, 2008. (TAC Nos. MD7763 through MD7771)

PR-12 was previously approved by the NRC for Calvert Cliffs Nuclear Power Plant in a letter dated May 16, 2002. (TAC Nos. MB3782 and MB3783)

PR-04 was previously approved by the NRC for Three Mile Island in a letter dated July 7, 2005. (TAC Nos. MC2558)

10 CFR 50.55a Request Number P-03
Millstone Power Station Unit 3

Smooth Running Pumps

Proposed Alternative
In accordance with 10 CFR 50.55a(z)(1)

Alternative Provides an Acceptable Level of Quality and Safety

1) ASME Code Component(s) Affected

All pumps in the IST Program with vibration reference values of <0.05 inches per second (ips)

2) Applicable Code Edition and Addenda

ASME OM Code 2012 Edition

3) Applicable Code Requirement(s)

ISTB-3300, Reference Values

ISTB-3300(a) requires that initial reference values shall be determined from the results of testing meeting the requirements of paragraph ISTB-3100, Preservice Testing, or from the results of the first inservice test.

ISTB-3300(b) requires that new or additional reference values shall be established as required by paragraph ISTB-3310 or ISTB-3320, or subparagraph ISTB-6200(c).

ISTB-3300(f) requires that all subsequent test results shall be compared to these initial reference values or to new reference values established in accordance with paragraph ISTB-3310 or ISTB-3320, or subparagraph ISTB-6200(c).

ISTB-5100, Centrifugal Pumps (Except Vertical Line Shaft Centrifugal Pumps)

ISTB-5121(e) and ISTB-5123(e) require for centrifugal pumps during their Group A test and comprehensive test that deviations from the reference values shall be compared with the ranges of Table ISTB-5121-1 and corrective action taken as specified in paragraph ISTB-6200. Vibration measurements shall be compared to both the relative and absolute criteria shown in the alert and required action ranges of Table ISTB-5121-1. For example, if vibration exceeds either 6Vr or 0.7 in/sec the pump is in the required action range.

MPS3 Relief Request P-03 (Cont.)

ISTB-5200, Vertical Line Shaft Centrifugal Pumps

ISTB-5221(e) and ISTB-5223(e) require for vertical line shaft centrifugal pumps during their Group A test and comprehensive test that deviations from the reference values shall be compared with the ranges of Table ISTB-5221-1 and corrective action taken as specified in paragraph ISTB-6200. Vibration measurements shall be compared to both the relative and absolute criteria shown in the alert and required action ranges of Table ISTB-5221-1. For example, if vibration exceeds either 6Vr or 0.7 in/sec the pump is in the required action range.

4) Reason for Request

Pumps with vibration reference value (Vr) < 0.05 ips are identified as smooth running pumps. Each smooth running pump has at least one Vr that is currently less than 0.05 ips. Small values for Vr produce small acceptable ranges for pump operation. The acceptable ranges are defined in Tables ISTB-5121-1, ISTB-5221-1, ISTB-5321-1, and ISTB-5321-2 as less than or equal to 2.5Vr. Based on the small acceptable range, a smooth running pump could be subject to unnecessary increased testing if the measured vibration parameter exceeds this acceptable range.

For very small reference values, hydraulic noise and instrument error can be a significant portion of the reading and affect the repeatability of subsequent measurements. Also, operating experience from the Millstone Power Station Predictive Maintenance Program has shown that changes in vibration levels in the range of 0.05 ips do not normally indicate significant degradation in pump performance.

It should be noted that all of the pumps in the IST Program will remain in the Predictive Maintenance Program. This alternative to the requirements of ISTB-3300, ISTB-5100, ISTB-5200, ISTB-5300 and the associated tables provides an acceptable level of quality and safety.

5) Proposed Alternative and Basis for use

To avoid unnecessary increased testing, a minimum value for Vr of 0.05 ips has been proposed for velocity measurements. This minimum value will be applied to individual vibration locations for certain pumps whose measured reference value is less than 0.05 ips. When new reference values are established per ISTB-3310, ISTB-3320 or ISTB-6200(c), the measured parameters will be evaluated for each location to determine if the provisions of this relief request still apply.

In addition to the requirements of ISTB, the pumps in the ASME Inservice Testing Program are included in the Millstone Predictive Maintenance Program.

MPS3 Relief Request P-03 (Cont.)

The Millstone Predictive Maintenance Program currently employs predictive monitoring techniques such as:

- Vibration monitoring and analysis beyond that required by ISTB,
- Oil sampling and analysis where applicable (e.g., for pumps with sufficiently large oil reservoirs).

If the measured parameters are outside the normal operating range or are determined by analysis to be trending toward an unacceptable degraded state, appropriate actions are taken that may include:

- Increased monitoring to establish rate of change,
- Review of component specific information to identify cause, or
- Removal of the pump from service to perform maintenance.

For the smooth running pumps, if a measured reference value is below 0.05 ips for a particular vibration measurement location, then subsequent test results for that location may be compared to an acceptable range based on 0.05 ips. In addition to the Code requirements, the pumps in the IST Program are included in and will remain in the Millstone Predictive Maintenance Program even if certain pumps have very low vibration readings and are considered to be smooth running pumps. This proposed alternative to the requirements of ISTB-3300, ISTB-5100, ISTB-5200, ISTB-5300, and the associated tables will provide adequate indication of pump performance and continue to provide an acceptable level of quality and safety.

Therefore, pursuant to 10CFR50.55a(z)(1), this proposed alternative requests relief from the specific ISTB requirements identified in this request.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fourth 10-year IST interval that is scheduled to begin on December 2, 2018.

7) Precedents

Pump Relief Request P-1 for Surry Power Station was approved by the NRC in a letter dated May 9, 2014. (TAC Nos. MF1811, MF1812, MF1815, MF1816, MF1818, MF1819, MF1821, MF1822 and MF1825)

Pump Relief Request P-1 for North Anna 1 was approved by the NRC in a letter dated November 15, 2010. (TAC Nos. ME2776 and ME2777)

Pump Relief Request PRR-011 for Fermi 2 was approved by the NRC in a letter dated August 7, 2013. (TAC Nos. ME2552, ME2553, ME2554, and ME2559)

MPS3 Relief Request P-03 (Cont.)

Pump Relief Request PR-04 for Sequoyah Nuclear Plant Units 1 & 2 was approved by the NRC in a letter dated May 12, 2016. (TAC Nos. MF7099 and MF7100)

10 CFR 50.55a Request Number P-04
Millstone Power Station Unit 3

Use of Code Case OMN-16

Proposed Alternative
In accordance with 10 CFR 50.55a(z)(1)
Alternative Provides an Acceptable Level of Quality and Safety

1) ASME Code Component(s) Affected

Pump(s): 3CCP*P1A
3CCP*P1B
3CCP*P1C
System: Reactor Building Closed Cooling Water
Group: A
Class: 3

2) Applicable Code Edition and Addenda

ASME OM Code, 2012 Edition

3) Applicable Code Requirement(s)

ISTB-5121, ISTB-5123, for Group A and comprehensive testing of centrifugal pumps that require adjustment to a specific reference value.

ISTA-3130(b) states that code cases shall be applicable to the edition and addenda specified in the test plan.

4) Reason for Request

DENC proposes to use Code Case OMN-16 to allow the use of a pump reference curve during testing rather than a single data point. This Code Case has been approved for use. However, applicability of this code case extends only to the 2011 Addenda of the OM Code.

5) Proposed Alternative and Basis for Use

DENC proposes to use Code Case OMN-16 as written in the 2012 Edition of the OM Code, and supplemented with Figure 1 of OMN-16 in the 2006 Addendum of the OM Code.

MPS3 Relief Request P-04 (Cont.)

The component cooling (CC) pumps provide cooling flow for heat removal capabilities for the Nuclear Steam Supply System (NSSS) supplied equipment and Balance of Plant (BOP) equipment.

Two CC pumps are required to be operable in Modes 1 through 4. Testing of the third pump requires manipulation of two trains of CC to balance flow rates and reduce the chance of lifting a pressure relief valve.

Pursuant to 10CFR50.55a(z)(1), DENC requests approval of the use of OMN-16, Revision 1, as stated in Table 2 of Regulatory Guide 1.192, Revision 2. Code Case OMN-16 has been approved by Reg. Guide 1.192, Revision 2 and therefore, provides an acceptable level of quality and safety.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fourth 10-year IST interval that is scheduled to begin on December 2, 2018.

7) Precedents

Pump Relief Request PRR-ANO1-2007-1, Arkansas Nuclear One, Unit 1 was approved by the NRC in a letter dated April 30, 2008. (TAC Nos. MD7709 and MD7710)

Pump Relief Request PRR-ANO2-2010-1, Arkansas Nuclear One, Unit 2 was approved by the NRC in a letter dated August 19, 2010. (TAC No. ME3367)

Pump Relief Request PR-06, Revision 1, Monticello Nuclear Generating Plant, was approved by the NRC in a letter dated September 26, 2012. (TAC Nos. ME8067, and ME8088 through ME8096)

10 CFR 50.55a Request Number P-05
Millstone Power Station Unit 3

Charging Pump Periodic Verification Test

Proposed Alternative
In accordance with 10 CFR 50.55a(z)(1)

Alternative Provides an Acceptable Level of Quality and Safety

1) ASME Code Component(s) Affected

Pump(s): 3CHS*P3A
3CHS*P3B
3CHS*P3C
System: CHEMICAL VOLUME CONTROL
Group: A
Class: 2

2) Applicable Code Edition and Addenda

ASME OM Code, 2012 Edition

3) Applicable Code Requirement(s)

ISTB, Mandatory Appendix V, Pump Periodic Verification Test Program, requires that pumps with a specific design basis accident flow rate credited in the Owner's safety analysis be included in this program. Pumps in the Pump Periodic Verification Test Program shall be tested at least once every two years to verify that they can meet the required pressure at their highest design basis accident flow rate accounting for instrument accuracies in the test acceptance criteria.

4) Reason for Request

This is a new test requirement of the 2012 edition of the OM Code. The design basis accident flow rate for these pumps, accounting for instrument accuracies, is 519.5 gpm. The comprehensive pump test flow rate for these pumps is approximately 505 gpm. It is determined by engineering calculation that the resistance of the charging pump injection flow path would be low enough to achieve the credited accident flow rate of 519.5 gpm following a design basis loss of coolant accident (LOCA). However, during non-design basis LOCA conditions, system resistance is such that the comprehensive pump test flow rate is the highest achievable flow rate for the charging pumps when accounting for instrument accuracies in the test acceptance criteria.

MPS3 Relief Request P-05 (Cont.)

5) Proposed Alternative and Basis for Use

DENC proposes that the comprehensive pump test be performed at the current comprehensive pump test flow rate in lieu of the credited design basis accident flow rate of the MPS3 Charging Pumps. The comprehensive pump test shall be performed at least once every two years at a flow rate of approximately 505 gpm which is sufficient for monitoring of degradation and provides assurance that the pumps will be able to perform at their design basis accident flow rate should a LOCA occur. Therefore, pursuant to 10 CFR 50.55a(z)(1), this alternative provides an acceptable level of quality and safety. Per OM Code requirements, DENC will determine whether the comprehensive pump test is required after replacement, repair, or maintenance of the charging pumps.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fourth 10-year IST interval that is scheduled to begin on December 2, 2018.

Snubber Relief Request S-01
Millstone Power Station Unit 3

Use of Code Case OMN-13 Revision 2 for the Visual Examination of Snubbers

Proposed Alternative
In accordance with 10 CFR 50.55a(z)(1)

Alternative Provides an Acceptable Level of Quality and Safety

1) ASME Code Component(s) Affected

All Hydraulic and Mechanical Snubbers in scope of the IST Program

2) Applicable Code Edition and Addenda

ASME OM Code 2012 Edition

3) Applicable Code Requirement(s)

ISTD-4252(c), "The duration of examination intervals following the completion of the second refueling outage shall be in accordance with Table ISTD-4252-1".

ISTA-3130(b) states that code cases shall be applicable to the edition and addenda specified in the test plan.

4) Reason for Request

Pursuant to 10 CFR 50.55a, "Codes and Standards", paragraph (z)(1), relief is requested from the applicability statement in Revision 2 of Code Case OMN-13 as shown in the 2012 Edition of the ASME OM Code. This request is to allow the use of ASME Code Case OMN-13, Revision 2 with the 2012 Edition of the ASME OM Code.

Code Case OMN-13, Revision 2 provides alternative rules for establishing the intervals for the visual examination of snubbers. Code Case OMN-13, Revision 2 applies to the 1995 Edition through the 2011 Addenda. DENC will implement the 2012 Edition of the ASME OM Code for the fourth 10 year IST interval.

5) Proposed Alternative and Basis for Use

By using Code Case OMN-13, Revision 2, DENC will be able to alter the visual examination intervals currently required by paragraph ISTD-4252(c) of the 2012 Edition of the ASME OM Code. ISTD-4252(c) currently requires that snubbers be visually examined in accordance with Table ISTD-4252-1 of the ASME OM Code, which states that each snubber within the scope of paragraph ISTA-1100 of the Code must be visually examined on a frequency not to exceed 48 months. Revision 2 of Code Case OMN-13 permits the user to extend that

MPS3 Relief Request S-01 (Cont.)

visual examination frequency to once each ten year interval. This permission is based on the provisions that the licensee must perform the visual examinations under the code case using the same criterion that would have been used under the Code and, in addition, the following criteria specified in the code case shall also be met:

1. Examination for indications of degradation or severe operating environments
2. Examination prior to maintenance or testing
3. Monitoring of reservoir fluid level
4. Review of Operational Readiness test data
5. Examination during disassembly
6. Transient dynamic event evaluation
7. Corrective action on unacceptable snubbers

Based on the additional criteria listed above along with the provisions that the original visual examination parameters specified in the 2012 Edition of the ASME OM Code will also be met, the use of Code Case OMN-13, Revision 2, approved by the NRC in Reg. Guide 1.192, will provide at least equivalent assurance that snubbers remain visually acceptable for performing their safety functions.

This proposed alternative to the specific requirements of ISTD-4252(c) identified above will provide adequate visual indication of snubber performance and continue to provide an acceptable level of quality and safety. Therefore, pursuant to 10 CFR 50.55a(z)(1), DENC requests approval of this proposed alternative to the specific ISTD requirements identified in this request.

6) Duration of Proposed Alternative

This proposed alternative is requested for the fourth 10-year IST interval this is scheduled to begin on December 2, 2018.

ATTACHMENT 3

Millstone Power Station Unit 3
Inservice Testing Program

Inservice Testing Program Plan for Pumps and Valves, Fourth 10-Year Interval

MILLSTONE POWER STATION UNIT 3
DOMINION ENERGY NUCLEAR CONNECTICUT, INC.

Millstone Power Station Unit 3

Inservice Testing Program
Fourth Ten Year Interval

Code of Reference: ASME OM Code 2012 Edition

Revision 0

Commercial Service Date:

April 23, 1986

Dominion Energy Nuclear Connecticut, Inc.
Millstone Power Station Unit 3
Rope Ferry Road
Waterford, CT 06385

REVISION LOG

Effective Date	Revision Description	Prepared: IST Coordinator	Date	Approved: Engineering Operations Support Manager	Date
12/2/2018	Fourth Ten-Year Interval, Revision 0 Submittal to NRC. Created in accordance with the 2012 ASME OM Code Edition except where relief is requested.	J. Stumb			

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1.0 INTRODUCTION

1.1 Purpose

To provide requirements for the performance and administration of assessing the operational readiness of those pumps and valves whose specific functions are required to:

- Shutdown the reactor to the safe shutdown condition
- Maintain the reactor in the safe shutdown condition
- Mitigate the consequences of an accident

1.2 Scope

The program plan was prepared to meet the requirements of the following subsections of the American Society of Mechanical Engineers (ASME) OM Code (2012 Edition with no Addenda).

- Subsection ISTA, "*General Requirements*"

  ISTA contains the requirements directly applicable to inservice testing including the Owner's Responsibility and Records Requirements.

- Subsection ISTB, "*Inservice Testing of Pumps in Light-Water Reactor Nuclear Power Plants – Pre-2000 Plants*"

  ISTB establishes the requirements for inservice testing of pumps in light-water reactor nuclear power plants. The applicable pumps are those provided with an emergency power source that are required to shut down a reactor to the safe shutdown condition, to maintain the safe shutdown condition, or to mitigate the consequences of an accident.

- Subsection ISTC, *"Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plants"*

  ISTC establishes the requirements for inservice testing of valves in light-water reactor nuclear power plants. The applicable valves are those that provide overpressure protection and are required to perform a specific function, either actively by changing valve obturator position or passively by effectively maintaining required obturator position in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident.

- Subsection ISTD, *"Preservice and Inservice Examination and Testing of Dynamic Restraints (Snubbers) in Light-Water Reactor Nuclear Power Plants"*

  The Snubber Program Plan for Millstone Power Station Unit 3 (MPS3) is not discussed in this Inservice Testing document and is maintained as its own separate plan.

- Mandatory Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants"

  Mandatory Appendix I provides the requirements for performance testing and monitoring of nuclear plant pressure relief devices. Methods, intervals, and record requirements for monitoring and testing are established, as well as guidelines for the evaluation of results. This appendix applies to safety valves, safety relief valves, pilot-operated pressure relief valves, power-actuated pressure relief valves, non-reclosing pressure relief devices and vacuum relief devices, including all accessories and appurtenances.

- Mandatory Appendix II, *"Check Valve Condition Monitoring Program"*

  Mandatory Appendix II provides an alternative to the testing or examination requirements of ISTC-3510, ISTC-3520, ISTC-3530, and ISTC-5221. The purpose of this program is both to improve valve performance and to optimize testing, examination, and preventive maintenance activities in order to maintain the continued acceptable performance of a select group of check valves. If the condition-monitoring program for a valve or valve group is discontinued, then the requirements of Subsection ISTC shall apply.

- Mandatory Appendix III, *"Preservice and Inservice Testing of* Active *Electric Motor Operated Valve Assemblies in Light-Water Reactor Nuclear Power Plants"*

  Mandatory Appendix III establishes the requirements for assessing the operational readiness of active motor-operated valves by verifying functional margin during inservice tests on specified frequencies.

- Mandatory Appendix V, *"Pump Periodic Verification Test Program"*

  Mandatory Appendix V provides the requirements for certain applicable pumps to meet the required differential or discharge pressure at the pump's highest design basis accident flow rate.

The MPS3 fourth 10-year interval Pump and Valve Inservice Testing Plan will be in effect as follows:

Begin	**End**
December 2, 2018	December 1, 2028

This plan will be updated as required in accordance with 10 CFR 50.55a(f).

This program plan provides a complete listing of those pumps and valves included in the program per the requirements of:

- ISTA *"General Requirements ,"*
- ISTB *"Inservice Testing of Pumps in Light-Water Reactor Nuclear Power Plants"*
- ISTC *"Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plants"*
- Mandatory Appendix I, *"Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants"*
- Mandatory Appendix II, *"Check Valve Condition Monitoring Program"*
- Mandatory Appendix III, *"Preservice and Inservice Testing of Active Electric Motor Operated Valve Assemblies in Light-Water Reactor Nuclear Power Plants"*
- Mandatory Appendix V, *"Pump Periodic Verification Test Program"*

The key features of this Plan are: the Pump and Valve table listings, Relief Requests, Alternative Test Justifications, and Technical Positions. The Millstone Power Station Unit 3 Inservice Testing Basis Document includes the justification for inclusion of components in the scope of IST and also the justifications for exclusion from the program. Administrative procedures, surveillance testing procedures, and other records required to define and execute the Inservice Testing Program are all retained and available at MPS3.

2.0 INSERVICE TESTING PLAN FOR PUMPS

2.1 Pump Inservice Testing Plan Description

This program plan meets the requirements of ASME OM Code Subsections ISTA, ISTB, and Mandatory Appendix V with the exception of specific relief requests contained in Attachment 4.3.

2.2 Pump Plan Table Description

The pumps included in the MPS3 IST Plan are listed in Attachment 4.10. The information contained in these tables identifies those pumps to be tested to the requirements of the ASME OM Code, the testing parameters and frequencies, and associated relief requests. The headings for the pump tables are delineated below.

Pump Description — Descriptive name of the pump.

Pump No. — Unique pump identification number.

Drawing No. / COOR. — Piping and Instrumentation Drawing (Flow Diagram) on which the pump is represented along with the P&ID Coordinate location.

Class — ASME Code classification of the pump.

1	Class 1
2	Class 2
3	Class 3

Pump Type — Pump type.

C-H	Centrifugal Horizontal
VLS	Vertical Line Shaft Centrifugal
PD	Positive Displacement

Pump Driver — Pump driver type.

MTR	Motor driven
TURB	Steam turbine driven
ENG	Engine Driven

Category — Pump category as defined in ISTB-2000.

A	Continuous or routinely operated pumps
B	Standby pumps not operated routinely except for testing

Pump Plan Table Description (Cont'd)

Test Type — Measured pump test parameters.

DP	Differential Pressure
N	Speed
Q	Flow Rate
V	Vibration
PD	Positive Discharge, Pressure

C – Denotes a Comprehensive Pump Test

Test Freq. — Frequency for performing the specified inservice test.

3M	Quarterly (92 Days)
24M	Biennially (2 Years)
CS	Cold Shutdown
RR	Refueling Outage

Relief Request — A relief request number is listed when a specific code requirement is determined to be impracticable. Attachment 4.2 contains an index of all the relief requests included in Attachment 4.3. Relief Requests are prefixed with "P" in the Notes column of the pump tables.

Tech. Position — A technical position number is listed when the requirements of the code are not easily interpreted and clarifying information is needed. The technical position is used to document how Code requirements are being implemented at the station. Technical Positions are prefixed with "TP" and listed next to the applicable pump in the Notes column of the pump tables where applicable. Attachment 4.8 contains an index of all the Station Technical Positions included in Attachment 4.9.

3.0 INSERVICE TESTING PLAN FOR VALVES

3.1 Valve Inservice Testing Plan Description

This plan establishes the test intervals and parameters to be measured to meet the requirements of ASME OM Code Subsections ISTA, ISTC, Mandatory Appendix I, Mandatory Appendix II, and Mandatory Appendix III with the exception of the specific relief requests contained in Attachment 4.5.

Where the frequency requirements for valve testing have been determined to be impracticable, Alternate Test Justifications have been identified and written. These justifications are provided in Attachment 4.7.

3.2 Valve Plan Table Description

The valves included in the MPS3 IST Plan are listed in Attachment 4.11. The information contained in these tables identify those valves that are required to be tested to the requirements of the ASME OM Code, the test parameters, frequency of testing, and the associated relief requests. The headings for the valve tables are delineated below.

Valve Description — Descriptive name of the valve.

Valve NO. — A unique identifier for the valve.

Drawing NO. / COOR. — Piping and Instrumentation Drawing (Flow Diagram) on which the valve is represented and the coordinate location.

Program — Standard or Augmented IST Program component

Type — The valve body style abbreviation.

AN	Angle
BF	Butterfly
BA	Ball
CK	Check
DIA	Diaphragm
GA	Gate
GL	Globe
PLG	Plug
RV	Relief
SV	Safety

MPS3 Valve Plan Table Description (Cont'd)

Actuator — The valve actuator type abbreviation.

AO	Air Operated
HO	Hydraulic Operated
MA	Manually Operated
MO	Motor Operated
MOL	Motor Operated – Low Risk
SA	Self Actuated
SO	Solenoid Operated

Size — The nominal pipe size of the valve, in inches.

Class — The Code Class abbreviations per Regulatory Guide 1.26.

1	Class 1
2	Class 2
3	Class 3
NA	Non-Code Class

Category. — The ASME OM Code category (or categories) as defined in ISTC-1300

A	Seat Leakage Limited.
B	Seat Leakage Not Required.
C	Self-Actuating Valves.
D	Single Use Valves.
AC	Both Categories A and C.
BC	Both Categories B and C.
N/A	Not Applicable

ACT/PASS — Active or Passive function determination for the valve in accordance with ISTC-2000.

A	Active
P	Passive

MPS3 Valve Plan Table Description (Cont'd)

NP — The Normal Position abbreviation. This refers to the valve's position during normal power operation. If the system does not operate during power operation, then the normal position is the position of the valve when the system is not operating.

C	Closed
LC	Locked Closed
LO	Locked Open
LT	Locked Throttled
O	Open
O/C	Open or Closed
SYS	System Condition Dependent

SP — The Safety Position(s) for the valve required to perform its function. For valves that perform safety functions in the open and closed positions more than one safety function position may be specified.

C	Closed
NA	Not Applicable
O	Open
O/C	Open and Closed

FP — The abbreviation for Fail Position.

C	Closed
FAI	Fails As Is
NA	Not Applicable
O	Open

Test — The test type abbreviation.

CVC	Check Valve Test Closed
CVO	Check Valve Test Open
DIAG	MOV Diagnostic Test
FCE	Full Cycle Exercise – full stroke of the valve from and back to its initial position
FSC	Fail-Safe Test Closed
FSO	Fail-Safe Test Open
LT	Category A Seat Leakage Test

MPS3 Valve Plan Table Description (Cont'd)

LTJ	Appendix J Leak Test
LTP	PIV Seat Leakage Test
PIT	Position Indication Test
RD	Rupture Disk Test
SKID	Skid Mounted Test
SP	Set Pressure Relief Valve Test
STC	Full-Stroke Exercise with Stroke Time Closed
STO	Full-Stroke Exercise with Stroke Time Open

Test Freq. — The required test frequency abbreviation.

3M	Quarterly
24M	Every 2 Years
6M	Every 6 Months
CM	Condition Monitoring
CS	Cold Shutdown
III	Per Appendix III
J	Per Appendix J Program
RR	Refueling Outage
OR	Every Other Refueling Outage
NPO	Normal Plant Operation
SK	Skid-Mounted Component
60M	Every 5 Years
120M	Every 10 Years

Notes — The Notes section will provide information for a components test where an alternate frequency is established as allowed by the Code, or by an approved relief request. This area may also have other references such as a Technical Position.

RR — A Relief Request number is listed when a specific code requirement is determined to be impracticable. Attachment 4.4 contains an index of the valve relief requests included in Attachment 4.5 and are prefixed with a "P".

ATJ — This lists the applicable Alternate Test Justification. This section refers to Cold Shutdown Justifications, Refueling Outage Justifications, and justifications for

MPS3 Valve Plan Table Description (Cont'd)

any other test frequencies that differ from the ASME OM Code required testing frequency. Attachment 4.6 contains an index of the Alternate Test Justifications included in Attachment 4.7.

TP — A Technical Position number is listed when the requirements of the code are not easily interpreted or clarifying information is needed. The technical position is used to document how Code requirements are being implemented at the station. Technical Positions are prefixed with "TP". Attachment 4.8 contains an index of the Station Technical Positions included in Attachment 4.9.

4.0 ATTACHMENTS:

Attachment 4.1 System and P&ID Listing

Attachment 4.2 Pump Relief Request Index

Attachment 4.3 Pump Relief Requests

Attachment 4.4 Valve Relief Request Index

Attachment 4.5 Valve Relief Requests

Attachment 4.6 Alternate Test Justification Index

Attachment 4.7 Alternate Test Justifications

Attachment 4.8 Station Technical Position Index

Attachment 4.9 Station Technical Positions

Attachment 4.10 Inservice Testing Pump Table

Attachment 4.11 Inservice Testing Valve Table

ATTACHMENT 4.1

SYSTEM AND P&ID LISTING

System Number	System Abbreviation	System Description	P&ID
3301	RCS	Reactor Coolant	26902-1
3301	RCS	Reactor Coolant	26902-2
3301	RCS	Reactor Coolant	26902-3
3301	RCS	Reactor Coolant	26902-4
3301	RCS	Reactor Coolant	26902-5
3301	RCS	Reactor Coolant	26902-6
3304A	CHS	Volume Control	26903
3304A	CHS	Volume Control	26904-1
3304A	CHS	Volume Control	26904-4
3304C	CHS	Boric Acid	26904-3
3305	SFC	Spent Fuel Pool Cooling & Purification	26911
3306	RSS	Containment Recirculation Spray	26912-3
3307A	SIL	Low Pressure Safety Injection	26912-2
3307B	RHS	Residual Heat Removal	26912-1
3308	SIH	High Pressure Safety Injection	26913-1
3308	SIH	High Pressure Safety Injection	26913-2
3309	QSS	Quench Spray	26915
3311A	SSR	Reactor Plant Sampling	26944-1
3311A	SSR	Reactor Plant Sampling	26944-2
3311C	SSP	Post Accident Analysis Sampling	26955-1
3312B	LMS	Containment Leakage Monitoring	26954-1
3312C	CMS	Containment Atmospheric Monitoring	26954-1
3313A	HCS	Hydrogen Recombiner Building Ventilation	26915
3313E	HVU	Containment Purge	26953-1
3313F	CVS	Containment Vacuum	26953-1
3314F	HVK	Control Bldg. HVAC; Building Purge, Battery Room HVAC, Com & Inst Rack A/C	26951-1
3314F	HVK	Control Bldg. HVAC; Building Purge, Battery Room HVAC, Com & Inst Rack A/C	26951-4
3314F	HVK	Control Bldg. HVAC; Building Purge, Battery Room HVAC, Com & Inst Rack A/C	26951-5
3316A	MSS – DTM	Main Steam & Relief Vents & Drains	26923-2
3316A	MSS – DTM	Main Steam & Relief Vents & Drains	26923-5
3316A	DTM	Main Steam & Relief Vents & Drains	26945-1
3316C	BDG	Steam Generator Blowdown	26923-1

System Number	System Abbreviation	System Description	P&ID
3321A	FWS	Feedwater	26930-3
3321A	FWS	Feedwater	26930-4
3322	FWA	Auxiliary Feedwater	26930-2
3326	SWP	Service Water	26933-1
3326	SWP	Service Water	26933-2
3326	SWP	Service Water	26933-4
3328	WTC	Chlorination	26933-1
3330A	CCP	Reactor Plant Component Cooling	26921-1
3330A	CCP	Reactor Plant Component Cooling	26921-2
3330C	CDS	Reactor Plant Chilled Water	26922-1
3330D	CCE	Charging Pump Cooling	26905-1
3330E	CCI	Safety Injection Pump Cooling	26914-1
3331A	ASS	Auxiliary Steam	26935-2
3331D	HVH	Hot Water Heating	26937-2
3332B	IAS	Containment Instrument Air	26938-3
3332C	SAS	Service Air	26938-1
3333	GSN	Nitrogen System On Cat 1 Components	26939-2
3335A	DGS	Reactor Plant Gaseous Drains	26907
3335B	DAS	Reactor Plant Aerated Drains	26906-3
3337	VRS	Reactor Plant Gaseous Vents	26907
3339	SGF	Steam Generator Chemical Feed	26931
3340C	PGS	Primary Grade Water	26919-1
3341A	FPW	Fire Protection Water	26946-2
3346A	EGA	Diesel Air Start	26916-2
3346A	EGA	Diesel Air Start	26916-4
3346B	EGF	Diesel Fuel Oil	26917-1

ATTACHMENT 4.2

PUMP RELIEF REQUEST INDEX

Relief Request No.	Description	NRC Approval Date
P-01	Safety Injection Pump Cooling Pump Flow Measurement	TBD
P-02	Categorization of Residual Heat Removal Pumps as Group A/B	TBD
P-03	Smooth Running Pumps	TBD
P-04	Use of Code Case OMN-16 for Use of Pump Curves	TBD
P-05	Appendix V – Charging Pumps	TBD

ATTACHMENT 4.3

MPS3 PUMP RELIEF REQUESTS

Pump Relief Request(s) will be inserted into the Unit 3 Program Plan upon approval from the NRC

ATTACHMENT 4.5

MPS3 VALVE RELIEF REQUEST INDEX

Relief Request No.	Description	NRC Approval Date
N/A	No valve relief requests have been submitted for approval for the fourth 10-year interval	

ATTACHMENT 4.6

MPS3 VALVE RELIEF REQUESTS

There are no valve relief requests for the fourth 10-year Interval

ATTACHMENT 4.7

ATJ No.	Description
ATJ-001	Safety Injection Check Valves
ATJ-002	Volume Control Tank Outlet Isolation Valves
ATJ-003	Boric Acid Tank Gravity Boration Valves
ATJ-004	Reactor Coolant Pump Seal Water Containment Isolation Valves
ATJ-005	Letdown Containment Isolation Valves
ATJ-006	Feedwater Isolation Valves
ATJ-007	Containment Purge Isolation Valves
ATJ-008	Instrument Air Containment Isolation Valves
ATJ-009	Main Steam Isolation Valves
ATJ-010	Auxiliary Feedwater Control Valves
ATJ-011	Safety Injection Isolation Valves
ATJ-012	Power Operated Relief Valves (PORV)
ATJ-013	Reactor Vent Valves
ATJ-014	Residual Heat Removal (RHR) Isolation Valves
ATJ-015	RHR Train Connection Valves
ATJ-016	Refueling Water Storage Tank (RWST) Check Valve
ATJ-017	Charging Isolation Valves
ATJ-018	RWST Isolation Valve
ATJ-019	Safety Injection Minimum Flow Isolation Valve
ATJ-020	Cold Leg Safety Injection Isolation Valve
ATJ-021	Cold Leg RHR Check Valves
ATJ-022	Cold Leg RHR Isolation Valves
ATJ-023	Hot Leg Safety Injection Isolation Valves
ATJ-024	Safety Injection Accumulator Isolation Valves
ATJ-025	Reactor Plant Component Cooling Heat Exchanger Isolation Valves
ATJ-026	Charging Loop Isolation Valves
ATJ-027	Letdown Orifice Isolation Valves
ATJ-028	Reactor Coolant Pump Thermal Barrier Isolation Valves
ATJ-029	Residual Heat Removal Suction Check Valves
ATJ-030	Charging Header Isolation Valve
ATJ-031	Letdown Pressure Isolation Valves
ATJ-032	Chilled Water Isolation Valves
ATJ-033	Temperature Control Valves
ATJ-034	Chilled Water Bypass Isolation Valves
ATJ-035	Main Steam Isolation Bypass Valves
ATJ-036	Containment Recirculation Spray to RHR Connection Valves

ATJ No.	Description
ATJ-037	Charging Minimum Flow Isolation Valves
ATJ-038	Fire Protection Isolation Valves
ATJ-039	RSS Pump Casing Vent Valves
ATJ-040	Control Building Ventilation Isolation Valves
ATJ-041	Low Pressure Safety Injection to Charging Pump suction valves
ATJ-042	PORV Block Valves
ATJ-043	Augmented Feedwater Isolation Valve Accumulator Check Valves
ATJ-044	Containment Recirculation Cooler Isolation Valves

ATTACHMENT 4.8

ALTERNATE TEST JUSTIFICATIONS

Alternate Test Justification ATJ-001

ASME Code Component(s) Affected

3SIH*V110	3SIH*V112	3SIL*V027
3SIL*V029	3SIL*V984	3SIL*V985
3SIL*V986	3SIL*V987	

Category AC

Class 1

Safety Function

These valves must open to allow injection from the accumulator and Residual Heat Removal (RHR) pumps. These valves must close to provide reactor coolant pressure boundary and isolate the Reactor Coolant System (RCS) from the upstream low pressure piping.

Justification

These check valves are normally closed during operation. Exercising these valves during operation is not possible since RCS pressure (2250 psig) is greater than the operating pressures of the High Head Safety Injection System (SIH) (1520 psig) and Residual Heat Removal System (RHS) (200 psig) pumps. These valves are required to be tested per plant Technical Specification Section 4.4.6.2.2 whenever the valves are open, at least once every 24 months, prior to entering mode 2 whenever the plant has been in cold shutdown for 7 days or more, and if leakage testing has not been performed in the previous 9 months. The surveillance requirements for RCS pressure isolation valves provide assurance of valve integrity thereby reducing the probability of gross valve failure and consequent inter system Loss of Coolant Accident (LOCA).

Alternative Frequency

These valves will be closure and leak tested during cold shutdown per plant Technical Specification 3/4.4.6 and ISTC-3522(b).

Alternate Test Justification ATJ-002

ASME Code Component(s) Affected

3CHS*LCV112B
3CHS*LCV112C

Category A

Class 2

Safety Function

These valves must automatically close on a safety injection signal (SIS) to isolate the volume control tank (VCT) from the charging pump suction. They must remain closed Post Loss of Coolant Accident (LOCA) to isolate contaminated recirculated sump fluid to the Refueling Water Storage Tank (RWST). These valves are also closed for Safety Grade Cold Shutdown (SGCS).

Justification

Stroke testing of these valves during power operation would result in a disruption of normal charging flow and cause loss of suction pressure to an operating charging pump. This could give rise to a loss of pressurizer level control resulting in a plant trip. Use of the alternate pump suction source may result in injecting high concentrations of boric acid into the Reactor Coolant System (RCS).

Alternative Frequency

These valves will be stroke time closure tested and full-cyle exercised during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-003

ASME Code Component(s) Affected

3CHS*MV8507A
3CHS*MV8507B

Category B

Class 2

Safety Function

These valves must open to provide a gravity feed emergency boration flowpath. These valves must remain closed during operation to prevent diversion of Emergency Core Cooling System (ECCS) flow.

Justification

In order to line up the charging system to permit exercising of these valves during power operation, it would be necessary to interrupt normal charging and letdown flow. Additionally, testing of these valves at power would result in uncontrolled boration of the Reactor Coolant System (RCS) with the reactor critical. A rapid boration would introduce a large amount of negative reactivity to the RCS causing a plant shutdown.

Alternative Frequency

These valves will be full-cycle exercise tested during cold shutdowns when the reactor is shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-004

ASME Code Component(s) Affected

3CHS*MV8100
3CHS*MV8112

Category A

Class 2

Safety Function

These valves must remain open to allow flow for Safety Grade Cold Shutdown. These valves must close to isolate the reactor coolant pump (RCP) seal injection line to provide containment isolation for penetration Z23 and to isolate a seal line break outside containment.

Justification

Plant operating procedures (per Westinghouse Tech. Manual) requires #1 seal return flow to be maintained whenever Reactor Coolant System (RCS) pressure exceeds 100 psig. Isolating these valves during plant operation or cold shutdowns in which the RCS is pressurized could damage the RCP seals.

Alternative Frequency

Seal supply valves will be full-cycle exercised and stroke time closure tested during cold shutdowns when the associated loop is drained. The seal return valves will be full-cycle exercised during cold shutdowns when RCS pressure is less than 100 psig and the seal return lines can be isolated. These alternatives are in accordance with ISTC-3521(c).

Alternate Test Justification ATJ-005

ASME Code Component(s) Affected

3CHS*CV8152
3CHS*CV8160
3CHS*MV8105
3CHS*MV8106

Category A

Class 2

Safety Function

These valves must automatically close on a Containment Isolation Actuation (CIA) to isolate the letdown flowpath and to provide containment isolation for penetration Z24.

Justification

The purpose of the charging and letdown subsystems of the Chemical Volume and Control System (CVCS) is to establish a programmed water level in the pressurizer to maintain proper reactor coolant inventory and proper chemical control of the Reactor Coolant System (RCS). Full-stroke exercising these valves on a quarterly basis during power operation could cause a loss of pressurizer level control and possibly a reactor trip. The plant is designed with a limited number of letdown isolation thermal cycles. As letdown is disrupted, the charging water to the RCS is no longer heated up and causes a thermal cycle on the hot path to the RCS.

Alternative Frequency

These valves will be full-cycle exercised, stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-006

ASME Code Component(s) Affected

3FWS*CTV41A	3FWS*CTV41B	3FWS*CTV41C
3FWS*CTV41D	3FWS*FCV510	3FWS*FCV520
3FWS*FCV530	3FWS*FCV540	

Category B

Class 2

Safety Function

The Feedwater Regulator and Feedwater isolation valves must close to isolate the Main Feedwater (FWS) system to prevent rapid Reactor Coolant System (RCS) heatup or cool down and isolate containment from the FWS system.

Justification

Stroke-testing these valves closed during power operation would temporarily secure flow to an operating steam generator and potentially lead to a reactor trip on low steam generator water level. FWS*CTV valves operator control circuit have a seal in function which prevents partial cycling unless the associated breaker is deenergized. Partial closing of the feed control valves would temporarily reduce flow and potentially lead to steam flow feed flow mismatch and subsequent reactor trip.

Alternative Frequency

These valves will be stroke time closure and failure position tested during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-007

ASME Code Component(s) Affected

3HVU*CTV32A
3HVU*CTV32B
3HVU*CTV33A
3HVU*CTV33B

Category A

Class 2

Safety Function

These valves must close to isolate containment from the containment purge system.

Justification

These valves are required by Technical Specification 3.6.1.7 to be locked closed during Modes 1, 2, 3, and 4.

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-008

ASME Code Component(s) Affected

3IAS*MOV72
3IAS*PV15

Category A

Class 2

Safety Function

These valves must close to isolate containment from the Instrument Air (IAS) System.

Justification

These valves isolate the entire inside-containment instrument air system from their normal source outside containment. Full-stroke testing of these valves during power operation would cause a complete loss of instrument air inside containment. As a result, all valves inside containment supplied by instrument air would stroke to their fail-safe position resulting in a plant shutdown.

Alternative Frequency

3IAS*PV15 will be stroke time closure and fail tested during cold shutdowns per ISTC-3521(c) and 3IAS*PV15 will be full-cycle exercised per III-3610.

Alternate Test Justification ATJ-009

ASME Code Component(s) Affected

3MSS*CTV27A
3MSS*CTV27B
3MSS*CTV27C
3MSS*CTV27D

Category B

Class 2

Safety Function

These valves must close to isolate the main steam flow path from its associated steam generator.

Justification

Full stroking these valves to the closed position during plant Modes 1 or 2 would result in an unbalanced steam flow condition producing an abnormal power distribution in the reactor core, possibly causing a reactor trip. Therefore, full close stroking of these valves for the purpose of testing is performed at plant Modes 3 or 4, per Technical Specification Surveillance Requirement 3.7.1.5.

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-010

ASME Code Component(s) Affected

3FWA*HV36A 3FWA*HV36C
3FWA*HV36B 3FWA*HV36D

Category B

Class 2

Safety Function

These valves must open to provide a flow path from the turbine driven auxiliary feedwater pump to the valve's associated steam generator. These valves must close to isolate a faulted steam generator on a main steam line break or steam generator tube rupture. These valves must also close to isolate containment from the feedwater (FWA) system.

Justification

Based on condition report (CR) M3-99-4132 / 4135 investigation and as documented in Technical Evaluation M3-EV-00-0013 Rev. 1, these valves, as currently configured, are susceptible to sluggish or incomplete closure when tested under static conditions. The technical evaluation states that "... these valves have a sensitive force balance and require a consistent test arrangement, with flow through the valve, to provide repeatable test results." To establish flow through these valves, two options were evaluated. One method is to feed forward with the auxiliary feedwater (AFW) pumps. The other method is to establish a gravity drain flow path from the Demineralized Water Storage Tank (DWST) through a vent valve on the motor driven auxiliary feedwater pump discharge header. Feeding forward to the steam generators is not desirable since the cooler water in the DWST may result in a thermal shock to the steam generator feedwater nozzles, as well as introduce oxygenated water. The gravity drain flow path method results in two AFW pumps being declared inoperable for the duration of the test. This places the unit in a very unfavorable condition requiring entry into a 6 hour Limiting Condition for Operation (LCO) action statement (T/S 3.7.1.2.b). Based on the negative safety implications of two inoperable auxiliary feedwater pumps, the potential for steam generator nozzle damage and the limited benefit gained from stroke time measurements, the test methods that would allow for quarterly full-stroke exercising and stroke time measurement are not practical.

Alternative Frequency

These valves will be stroke time open, stroke time closure and failure tested during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-011

ASME Code Component(s) Affected

3SIH*V110
3SIH*V112
3SIL*V027
3SIL*V029

Category AC

Class 1

Safety Function

These valves must open to provide a flow path from the safety injection pumps to the reactor coolant system (RCS). These valves must close to isolate the reactor coolant system from the safety injection system.

Justification

The only flow path available to perform a full flow exercise of these valves is by injection to the RCS. Full flow testing of these valves at power is not possible because the shutoff head of the High Head Safety Injection (SIH) pumps (1520 psig) is insufficient to overcome RCS operating pressure. Full flow testing at cold shutdown could result in over-pressurization of the RCS. While 3/4 inch test lines are available which could be used to partially stroke the 2 inch diameter SIL and SIH valves, these lines do not have sufficient capacity to provide a meaningful part stroke exercise since disk movement resulting from such an exercise would be negligible. Such an exercise would also require containment entry and isolation of the cold leg injection lines (train A for SIL*V27 and V29, train B for SIH*V110 and V112), both of which are undesirable activities when safety injection is required. Furthermore, these are pressure isolation valves which are required by Technical Specification 4.4.6.2.2 to be leak tested within 24 hours following any valve opening during reactor operation. Opening them by partial stroke testing during operation or cold shutdown increases the potential for their failure to close as required, which would result in a loss of RCPB integrity and force the unit to shut down or remain shut down until repairs could be completed. The potential adverse impact on safety that would result from partially exercise these valves when the safety injection function is required is more significant that the marginal increase in safety that may be achieved by quarterly or cold shutdown partial stroke testing.

Alternate Test Justification ATJ-011

Alternative Frequency

These valves will be full-stroke open exercised during refueling outages when the reactor vessel head is removed per ISTC-3522(c). Valves will be monitored using non-intrusive techniques in accordance with the recommendations of NUREG 1482, Section 4.1.2.

Non-intrusive testing will monitor the open capability for check valves in each injection flow path in conjunction with a full flow test monitored at the pump discharge. The non-intrusive technique will provide a positive means to verify valve opening and disc travel change. The full flow will be verified at the pump discharge flow element. Non-intrusive testing will be performed on check valves in each flow path on a staggered sample basis. In the event that inconclusive non-intrusive data is obtained, the second check valve in the series injection flow path will be tested.

Alternate Test Justification ATJ-012

ASME Code Component(s) Affected

3RCS*PCV455A
3RCS*PCV456

Category B

Class 1

Safety Function

These valves must open to provide a flow path from the pressurizer to the pressurizer relief tank.

Justification

Full-stroke exercising of these valves during power operation is counterproductive. The valves are required for safety grade cold shutdown over pressure protection. These valves are available at power to lift and reduce pressure transients and challenges to the pressurizer safety valves. Experience at MPS has shown that frequent operation of the PORVs can cause seat leakage. Damage (i.e., seat leakage) results in closure of the PORV block valve which is allowed by plant Technical Specifications. Isolating the PORV increases the potential for challenges to the pressurizer safety valves. These valves are a unique design with no water seal upstream of the PORV, which exposes the relief valve seat to high temperature steam. PORV testing performed by EPRI in 1982 has verified this valve design will leak after frequent cycling.

Previous testing at power has identified no failure of the stroke time testing. Testing at cold shutdown does not provide accurate indication of stroke time because valve indication is adjusted at operating temperature and does not accurately indicate the open position at reduced temperatures.

Alternative Frequency

These valves (PV455A and PV456) will be stroke time open tested, failure tested, and operated through one complete cycle of travel at least once every refueling outage during modes 3, 4 or 5. This is consistent with the required testing of Technical Specifications Section 4.4.4.1.b and ISTC-3521(d).

If a valve is replaced, a stroke test will be performed in mode 4 prior to returning the plant to service. In addition, a stroke test in the open direction may be performed in mode 5, if the valve is required to be operable to provide cold overpressure protection. (Reference, MPS3 Technical Specification 3.4.9.3).

Alternate Test Justification ATJ-013

ASME Code Component(s) Affected

3RCS*HCV442A	3RCS*HCV442B	3RCS*SV8095A
3RCS*SV8095B	3RCS*SV8096A	3RCS*SV8096B

Category B

Class 2

Safety Function

These valves must open to provide a flow path from the reactor to the pressurizer relief tank. These valves must close to isolate the reactor from the pressurizer relief tank.

Justification

These are target rock pilot assisted valves which require pressure assist to function properly. When they are stroked during power operation, the entrained reactor coolant flashes and causes steam cutting damage to the seating surfaces which results in valve leakage. While such conditions do not present a concern for nuclear safety, they do impact plant operation in that unit shutdown is then required to affect repairs.

Alternative Frequency

These valves will be stroke time open and closed tested during cold shutdowns when the reactor coolant will not flash and damage the valves' seating surfaces. This is consistent with TRM Section 4.4.11.1 requirements and ISTC-3521(c).

Alternate Test Justification ATJ-014

ASME Code Component(s) Affected

3RHS*MV8701A	3RHS*MV8701B	3RHS*MV8701C
3RHS*MV8702A	3RHS*MV8702B	3RHS*MV8702C

Category A

Class 1

Safety Function

These valves must open for long term core cooling during a Safety Grade Cold Shutdown (SGCS). These valves must close to prevent backflow from the Containment Recirculation Spray (RSS) pump during the recirculation phase of a Loss of Coolant Accident (LOCA).

Justification

Stroke testing of these valves at power is not possible. MV8701A/B and MV8702A/B are interlocked to prevent operation (opening) when the Reactor Coolant System (RCS) pressure is above 375 psig. Full-stroke exercising MV8701C and MV8702C poses unnecessary exposure to a low pressure system LOCA. These valves are RCS pressure isolation valves which are required to be closed per Technical Specification 3.4.6.2 and are leak tested within 24 hours after operation. In order to leak test these valves, a containment entry (personnel safety risk; radiation exposure) is required, and any leakage through these valves flashes to steam and must be vented to containment atmosphere (hydrogen and radioactive gaseous problem).

Alternative Frequency

These valves will be full-cycle exercised during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-015

ASME Code Component(s) Affected

3RHS*MV8716A
3RHS*MV8716B

Category B

Class 2

Safety Function

These valves must open to provide a cross tie between the Residual Heat Removal (RHR) trains. These valves must close to align the Safety Injection (SI) system for cold leg recirculation.

Justification

Full-stroke exercising these valves closed during power operation would render the RHR system inoperable by isolating two of the four cold leg injection paths to the Reactor Coolant System (RCS) from RHR.

Alternative Frequency

These valves will be full-cycle exercise tested during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-016

ASME Code Component(s) Affected

3SIH*V011

Category AC

Class 1

Safety Function

This valve must open to provide a flow path from the Refueling Water Storage Tank (RWST) to the safety injection pumps. This valve must close to isolate the RWST from the Safety Injection pump suction piping.

Justification

There is no flow path available to full-stoke test this valve during power operations, since the safety injection pumps do not develop sufficient head to overcome Reactor Coolant System (RCS) pressure. Full-stroke testing should not be performed during cold shutdown because the required flow would risk over pressurization of the RCS. There is no practical flow path to verify closure of this valve by normal reverse flow testing. Closure is verified by non-intrusive techniques (acoustic signature, etc.) or leakage testing during refueling outages. Since a full stroke is required to obtain meaningful data during non-intrusive testing, closure testing cannot be performed during the part stroke exercising performed during operation and cold shutdowns.

Alternative Frequency

Full-stroke open and closure testing will be performed during refueling outages when the reactor closure head is removed per ISTC-3522(c). Closure capability will be verified using non-intrusive techniques to monitor disc movement or leakage testing during refueling outages.

Alternate Test Justification ATJ-017

ASME Code Component(s) Affected

3SIH*MV8801A
3SIH*MV8801B

Category A

Class 2

Safety Function

These valves must open to provide a flow path for the Chemical and Volume Control Charging (CHS) Pumps to deliver water to the Reactor Coolant System (RCS) Cold Legs. These valves must also open to provide an alternate charging path for achieving Safety Grade Cold Shutdown (SGCS). These valves must close to isolate the containment from the charging pump discharge lines.

Justification

Stroke testing these valves during power operation would require disruption of normal charging flow and the injection of non-preheated water into the RCS resulting in thermal shock to the inlet nozzles.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-018

ASME Code Component(s) Affected

3SIH*MV8806

Category B

Class 2

Safety Function

This valve must remain open to provide a flow path from the RWST to the Safety Injection pumps during the injection phase of a Loss of Coolant Accident (LOCA). This valve must close to isolate the RWST from the Safety Injection pump suction piping.

Justification

This valve is in the position required during the initial phases of an accident requiring safety injection. The valve does not receive a safety signal, since realignment of the valve to the recirculation mode is accomplished by manual repositioning. Testing of this valve during power operation would place it in a non-conservative position, temporarily disabling both safety injection trains by isolating the common suction from the RWST, and possibly causing damage to both pumps if an SI were to occur. If required, the valve can be repositioned locally so that deferring the testing of this valve to cold shutdown would not compromise plant safety.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-019

ASME Code Component(s) Affected

3SIH*MV8813

Category B

Class 2

Safety Function

This valve must remain open to provide a minimum flow path from the safety injection pump to the RWST. This valve must close to isolate the RWST from the safety injection pump discharge.

Justification

Full-stroke exercising of 3SIH*MV8813 closed during power operation would isolate both pumps minimum flow lines. In addition, failure of this valve closed during power operations, coincident with an SI signal and a pressurized RCS system, would dead head the pumps. While such an event is unlikely, it is considered credible. Additionally, this valve is required to be open with power removed from the operator during Modes 1, 2, and 3 per Technical Specification 3/4.5.2 to ensure operability of this Emergency Core Cooling System subsystem.

Alternative Frequency

This valve will be full-cycle exercised during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-020

ASME Code Component(s) Affected

3SIH*MV8835

Category A

Class 2

Safety Function

This valve must remain open to provide a flow path from the safety injection pumps to the Reactor Coolant System (RCS) cold legs. This valve must close to isolate the Reactor Coolant system cold legs and containment from the Safety Injection system.

Justification

This valve is required to be open and power removed from the operator during modes 1, 2 and 3 per Tech. Spec. 3/4.5.2 to ensure operability of this ECCS subsystem.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-021

ASME Code Component(s) Affected

3SIL*V984
3SIL*V985
3SIL*V986
3SIL*V987

Category AC

Class 2

Safety Function

These valves must open to provide flow to the Reactor Coolant System (RCS) cold leg during the injection phase of a Loss of Coolant Accident (LOCA). These valves must close to isolate containment from the Residual Heat Removal (RHS) system.

Justification

There is no flow path available to test these valves during power operation with a pressure source capable of overcoming RCS pressure. The normal pressure sources which would be used during an accident to stroke the valves are the residual heat removal (RHS) pumps which develop a shut off head of only 200 pounds.

Alternative Frequency

These valves will be full-stroke open tested during cold shutdown when the Residual Heat Removal System is in operation and flow to the parallel loops can be isolated per ISTC-3521(c).

Alternate Test Justification ATJ-022

ASME Code Component(s) Affected

3SIL*MV8809A
3SIL*MV8809B

Category A

Class 2

Safety Function

These valves must open to provide a flow path for the Residual Heat Removal (RHS) System to inject into the Reactor Coolant System (RCS) cold legs during the injection phase of a Loss of Coolant Accident (LOCA). Additionally, these valves must open to reestablish cold leg recirculation flow path following certain passive failures within the Emergency Core Cooling System (ECCS) piping.

These valves must close to align the Containment Recirculation Spray (RSS) System for hot and cold leg recirculation flow. Additionally, these valves must close to isolate the containment atmosphere from the Low Pressure Safety Injection (SIL) System.

Justification

These valves are required to be open with power removed from the operators during modes 1, 2 and 3 per Tech. Spec. 3/4.5.2 to ensure operability of this ECCS subsystem.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-023

ASME Code Component(s) Affected

3SIH*MV8802A
3SIH*MV8802B

Category A

Class 2

Safety Function

These valves must open to provide a flow path from the safety injection pumps to the Reactor Coolant System (RCS) hot legs. These valves must close to isolate the RCS hot legs and containment from the Safety Injection system.

Justification

These valves are required to be closed with power removed from the operators during modes 1, 2 and 3 per Tech. Spec. 3/4.5.2 to ensure operability of this ECCS subsystem.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-024

ASME Code Component(s) Affected

3SIL*MV8808A
3SIL*MV8808B
3SIL*MV8808C
3SIL*MV8808D

Category B

Class 2

Safety Function

These valves must open to provide a flow path for the Safety Injection Accumulator Tank to inject into the Reactor Coolant System (RCS) cold leg. This valve must close to prevent nitrogen in the Safety Injection Accumulator Tank from reaching the Steam Generator tubes following tank discharge during a Main Steam Line Break event.

Justification

Technical Specifications section 3.5.1 and plant operating procedures require these valves to be open with power removed during Modes 1, 2 and 3, and specify quick and decisive action to reopen any valve that is closed or begin shutting the reactor down. The consequences of one of these valves failing closed during reactor operation are significant in that such an event would disable a portion of the low pressure safety injection system and thereby reduce its capability to mitigate an accident. The negative consequences of such a potential failure are therefore determined to be more significant than the marginal increase in safety that may be accomplished by quarterly closure testing of these valves during power operation.

Alternative Frequency

These valves will be full-cycle exercised at cold shutdown frequency during either plant heatup or plant cool down per ISTC-3521(c).

Alternate Test Justification ATJ-025

ASME Code Component(s) Affected

3SWP*MOV50A
3SWP*MOV50B

Category B

Class 3

Safety Function

These valves must open to provide a flow path to the Reactor Plant Component Cooling (CCP) Heat Exchangers post-accident. These valves must close to isolate the Reactor Plant Component Cooling Heat Exchangers during a Loss of Coolant Accident (LOCA) or High Energy Line Break (HELB) event inside containment.

Justification

Quarterly full-stroke exercising either of these valves closed would isolate a component cooling water heat exchanger resulting in possible adverse equipment response to both safety-related and non-safety-related trains.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-026

ASME Code Component(s) Affected

3CHS*AV8146
3CHS*AV8147

Category B

Class 2

Safety Function

These valves must open to provide a flow path for charging flow during a Safety Grade Cold Shutdown (SGCS).

Justification

These valves should not be full-stroke exercised during operation because only one flow path is normally in service. Swapping the flow paths during operation causes an undesirable thermal transient in the idle injection nozzle and is not normally performed. The flow paths are therefore only swapped before start up from cold shutdowns of sufficient duration while the Reactor Coolant System temperature is near ambient.

Alternative Frequency

These valves will be stroke time open and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-027

ASME Code Component(s) Affected

3CHS*AV8149A
3CHS*AV8149B
3CHS*AV8149C

Category B

Class 2

Safety Function

These valves must close to isolate the letdown line outside containment.

Justification

These valves should not be full-stroke exercised during operation because they are in the normal charging letdown flow path which provides inventory and chemistry control to the Reactor Coolant System (RCS). Diversion of flow could cause RCS inventory fluctuations.

Alternative Frequency

These valves will be stroke time closed and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-028

ASME Code Component(s) Affected

3CCP*AOV178A
3CCP*AOV178B
3CCP*AOV178C
3CCP*AOV178D

Category B

Class 3

Safety Function

These valves must close to isolate the Reactor Coolant Pump (RCP) Thermal Barrier in the event of a tube leak.

Justification

These valves are in the flow path for the RCP seals thermal barrier cooling. Closing them during operation would cause a rapid heat-up of the associated thermal barrier and the valve, possibly causing it to stick, ultimately resulting in seal damage and forced shutdown of the unit.

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdown when the RCPs are not operating per ISTC-3521(c).

Alternate Test Justification ATJ-029

ASME Code Component(s) Affected

3SIL*V003
3SIL*V009

Category AC

Class 2

Safety Function

These valves must open to provide a flow path for cooling water during the injection phase of a Loss of Coolant Accident (LOCA) and for Safety Grade Cold Shutdown (SGCS).

Justification

The Residual Heat Removal (RHR) System (RHS) pumps have insufficient head (200 psig) to overcome Reactor Coolant System (RCS) pressure during operation (2250 psig) for full flow testing, and there is no test line with sufficient capacity for full flow testing. Testing involves passing flow through two independent trains of RHR. During some cold shutdowns it may not be necessary to rely on both trains of RHR to maintain cold shutdown. Testing of the idle train check valves involves cycling upstream pressure isolation valves to allow flow through either the loop 1 or 4 recirculation flow paths. Technical Specifications then requires leak testing these PIVs. This increased burden and challenge to PIVs does not warrant testing both trains each cold shutdown.

Alternative Frequency

One train of two valves will be full-stroke tested open during cold shutdown. Both trains will be full-stroke tested each refuel outage per ISTC-3522(c).

Alternate Test Justification ATJ-030

ASME Code Component(s) Affected

3CHS*HCV182

Category B

Class 2

Safety Function

This valve must open to provide a flow path for borated water to the Reactor Coolant System (RCS) for Safety Grade Cold Shutdown (SGCS) with a loss of control air or electrical power to valves in the borated water flow path.

Justification

Seal water flow provides continuous cooling of the seals during power operation to prevent seal damage due to high temperature and continuous flushing during shutdown periods to prevent the intrusion of foreign material. Full-stroke exercising of these valves requires establishment of an alternate seal water flow path and simultaneous isolation of the normal flow path, at a controlled rate which will not cause the seals or other components in the flow path to be damaged by either high flow or by flow starvation. Establishment of the alternate flow is an off-normal evolution (EOP related) which carries some risk of inadvertent isolation of seal flow. Such an event would have negligible consequences if it occurred for a short period of time when the reactor is not pressurized, but could have significant consequences if it occurred during power operation.

Alternative Frequency

This valve will be full-stroke tested open during refueling and during cold shutdown when RCS pressure is less than 100 psig per ISTC-3521(c).

Alternate Test Justification ATJ-031

ASME Code Component(s) Affected

3RCS*LCV459
3RCS*LCV460

Category B

Class 1

Safety Function

These valves must close to isolate the reactor coolant pressure boundary from the normal letdown line.

Justification

These valves should not be full-stroke exercised during operation because they are in the normal charging let down flow which provides inventory and chemistry control to the Reactor Coolant System (RCS). Diversion of flow could cause RCS inventory fluctuations.

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-032

ASME Code Component(s) Affected

3CDS*CTV38A	3CDS*CTV38B	3CDS*CTV39A
3CDS*CTV39B	3CDS*CTV40A	3CDS*CTV40B
3CDS*CTV91A	3CDS*CTV91B	

Category A

Class 2

Safety Function

These valves must close to isolated containment from the Reactor Plant Chilled Water (CDS) System.

Justification

Closing these valves during power operation requires the chillers be removed from service to prevent a chiller trip on low flow and potential equipment damage. With the chillers out of service, containment temperature rises quickly within an hour and this has the potential of placing the plant in a LCO requiring a unit shutdown.

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-033

ASME Code Component(s) Affected

3HVK*TV39A	3HVK*TV39B	3HVK*TV41A
3HVK*TV41B	3HVK*TV76A	3HVK*TV76B
3HVK*TV77A	3HVK*TV77B	

Category B

Class 3

Safety Function

These valves must open to provide a chilled water flow path for the safety-related control room loads.

Justification

These temperature control valves utilize Target Rock Solenoid valves that normally modulate temperature to the Control Building Water System air handling unit coils. There are no control room switches to operate the valves to perform exercising. In addition there are no indicating lights in the control room for the valves. To exercise and stroke time the valves requires setting up non-intrusive equipment on the valves and then removing and reinstalling fuses at the breaker panel to fully open and close the valves. It is not practical to test the valves quarterly since setting up non-intrusive test equipment impacts plant resources and the removal and reinstallation of the fuses adversely impacts plant personnel safety and equipment reliability. The frequent removal and installation introduces an unnecessary wear on the fuse contacts. NUREG 1482 section 3.1.1 "Deferring Valve Testing to Each Cold Shutdown or Refueling Outage" recognizes the use of non-intrusive test methods each quarter may be impractical. In addition, manual operator action to restore the system would be required if an accident occurred. Therefore it is concluded that the potential adverse impact on safety, equipment reliability and resources outweighs the marginal increase in safety that may be achieved by the quarterly testing.

Alternative Frequency

These valves will be failure tested and stroke timed open during cold shut down using non-intrusive methods or other positive means per ISTC-3521(c).

Alternate Test Justification ATJ-034

ASME Code Component(s) Affected

3HVK*PDV32A
3HVK*PDV32B

Category B

Class 3

Safety Function

These valves must close to prevent diversion of cooling water flow.

Justification

These pressure control valves utilize Target Rock Solenoid valves to maintain constant differential pressure across the HVK pumps. There are no control room switches to operate the valves to perform exercising. In addition there are no indicating lights in the control room for the valves. In order to exercise and stroke time the valves requires setting up non-intrusive equipment on the valves and then removing and reinstalling fuses at the breaker panel to fully open and close the valves. It is not practical to test the valves quarterly since setting up non-intrusive test equipment impacts plant resources and the removal and reinstallation of the fuses adversely impacts plant personnel safety and equipment reliability. The frequent removal and installation introduces an unnecessary wear on the fuse contacts. NUREG 1482 section 3.1.1 "Deferring Valve Testing to Each Cold Shutdown or Refueling Outage" recognizes the use of non-intrusive test methods each quarter may be impractical. In addition, manual operator action to restore the system would be required if an accident occurred. Therefore it is concluded that the potential adverse impact on safety, equipment reliability and resources outweighs the marginal increase in safety that may be achieved by the quarterly testing.

Alternative Frequency

These valves will be failure and stroke time closed tested during cold shut downs using non-intrusive methods or other positive means per ISTC-3521(c).

Alternate Test Justification ATJ-035

ASME Code Component(s) Affected

3MSS*HV28A
3MSS*HV28B
3MSS*HV28C
3MSS*HV28D

Category B

Class 2

Safety Function

These valves must close to isolate the main steam flow path from its associated steam generator.

Justification

The Main Steam Isolation Valve (MSIV) Bypass valves are normally closed and are opened during startups to warm up Main Steam lines and equalize pressure across the MSIVs. The safety function of the valves is to isolate non-safety-related portions of the MS under accident conditions and prevent uncontrolled blowdown of more than one steam generator in the event of a main steam line break. The valves remain closed during the entire operating cycle, except for an 18 month slave relay test, and although they can be tested each quarter, it is considered a hardship since the risk of performing testing quarterly outweighs the benefit achieved. Testing quarterly vs. Cold shutdown does not provide any increase in safety since the valves are not called upon to change position during the cycle for any safety function and opening them for testing purposes only decreases safety by increasing the exposure to a condition where the valve must change position during accident conditions. In addition, testing during the cycle unnecessarily cycles the valves reducing the life expectancy of the components. Therefore, it is concluded that the potential adverse impact on safety, equipment reliability and resources constitute a hardship allowing cold shutdown stroke time testing to assure operational readiness.

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdowns per ISTC-3521(c).

Alternate Test Justification ATJ-036

ASME Code Component(s) Affected

3RSS*MV8837A
3RSS*MV8837B
3RSS*MV8838A
3RSS*MV8838B

Category B

Class 2

Safety Function

These valves must open to provide a flow path from the Containment Recirculation Spray (RSS) system to the Residual Heat Removal (RHS) system. These valves must close to isolate the RSS System from the RHS System.

Justification

The valve test frequency is being changed because of the RSS pump test frequency change. The frequency test requirements for the RSS pumps changed by applying ISTB-3430 "Pumps lacking required fluid inventory" (i.e. Dry Sump). The test frequency changed from quarterly to once every refueling outage. The RSS valves are tested when the normally dry layup RSS line is filled and vented. The valves establish a boundary between the dry layup piping and filled Emergency Core Cooling System (ECCS) lines. CR-01-11805 identified that it is not practical to stroke the valves with the RSS line dry because it could lead to air intrusion into both trains of ECCS if a Loss of Coolant Accident (LOCA) occurred during the stroke. The only time the RSS lines are filled and vented is during refueling outages. Therefore, it is concluded that the potential adverse impact on safety systems constitute a hardship allowing refueling frequency stroke time testing to assure operational readiness.

Alternative Frequency

These valves will be full-cycle exercised during refueling per ISTC-3521(e).

Alternate Test Justification ATJ-037

ASME Code Component(s) Affected

3CHS*MV8511A
3CHS*MV8511B

Category A

Class 2

Safety Function

These valves must open to provide a flow path for charging pump minimum flow during the injection phase of a Loss of Coolant Accident (LOCA). These valves must close during the cold leg recirculation phase of a LOCA to isolate charging pump recirculation flow to the Refueling Water Storage Tank (RWST).

Justification

Valves 3CHS*MV8511A/B are normally closed during operation and are required to open on a Safety Injection System (SIS) signal to align the charging pump recirculation back to the RWST. These valves have an interlock with valve 3CHS*LCV112B/C. Each of the LCV112 valves has to be closed prior to opening the MV8511 valve. The LCV112 valves are on the Volume Control Tank discharge to the suction of the charging pumps. Closure of these valves would isolate the normal suction flow path for the charging pumps.

The alternate suction flow path from the RWST to the charging pumps suction could be opened. However, the boron concentration of the RWST could be significantly different than the VCT, which would create a reactivity management concern.

A jumper in the control circuit of the MV8511 valves could be installed to bypass the interlock. However, the junction boxes (3JB*2641 and 3JB*2642) are physically located in the overhead of the C charging pump cubicle. Installation of a jumper on a quarterly frequency would require a ladder and would be difficult to perform due to the piping arrangement in the room. Installation of the jumper at the LCV112 valve actuators would require removal of the cover and subsequent cycling of the valve which also isolates the normal charging pump suction flow path.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-038

ASME Code Component(s) Affected

3FPW*CTV48
3FPW*CTV49

Category A

Class 2

Safety Function

These valves must close to isolate containment from the Fire Protection Water (FPW) system.

Justification

Valves 3FPW*CTV48 and 3FPW*CTV49 provide containment isolation for penetration Z-56. The valves are normally open, air-operated valves that close on containment isolation. The penetration provides the only flow path for firewater into the containment header. This header is credited in the Fire Protection Program to provide a water curtain for separation of redundant fire safe shutdown cables inside containment to meet NRC BTP 9.5-1. A failure of either valve during cycling would require the closure of the valve to meet the action requirements for containment isolation. This would cause the loss of credited fire separation for the redundant fire safe shutdown cables, due to the isolation of the firewater header inside containment.

Alternative Frequency

These valves will be stroke time closure and failure tested during cold shutdown in accordance with ISTC 3521 (c).

Alternate Test Justification ATJ-039

ASME Code Component(s) Affected

3RSS*V907
3RSS*V908
3RSS*V909
3RSS*V910

Category C

Class 2

Safety Function

These valves must open to vent the Containment Recirculation Spray (RSS) Pump casing. These valves must close to prevent diversion of RSS pump flow.

Justification

The RSS pump casing check valve test frequency is being changed because of the RSS pump test frequency change. The frequency test requirements for the RSS pumps changed by applying ISTB-3430 "Pumps lacking required fluid inventory" (I.e. Dry Sump). The test frequency changed from quarterly to once every refueling outage. The RSS check valves can only be tested when the pump is tested.

Alternative Frequency

These valves will be exercised open and closed during refueling in accordance with ISTC 3522 (c).

Alternate Test Justification ATJ-040

ASME Code Component(s) Affected

3HVC*AOV25
3HVC*AOV26

Category B

Class 2

Safety Function

These valves must automatically open on a control building isolation (CBI) signal to open the control room outside ventilation.

Justification

Valves 3HVC*AOV25 and 26 are required to be open during operation to maintain the Control Room Emergency Ventilation System (CREV) operable. To prevent inadvertent operation, and subsequently a concern regarding single failure in the closed position that would render the control room pressurization system inoperable, the valves are administratively controlled by isolating the supply air to the actuator. Automatic initiation of the CREV on a CBI signal will provide additional margin to the Fuel Handling Accident Control room dose analysis.
Failure of one of these valves in the closed position could result in blockage of the inlet path to the CREV system. Per NUREG 182 section 3.1.1, valves that could cause a loss of system function if they were to fail in a non-conservative position can be deferred to cold shutdown or refueling.

Alternative Frequency

These valves will stroke time and failure tested during cold shutdown per ISTC-3521(c).

Alternate Test Justification ATJ-041

ASME Code Component(s) Affected

3SIL*MV8804A 3SIL*MV8804B

Category B

Class 2

Safety Function

These valves must open to align Charging (Train A) or Safety Injection (Train B) systems from the RSS for alignment of long term recirculation.

Justification

These valves receive no automatic signals to reposition and must be manually realigned by operator action in the control room.

These valves have the following interlocks: Cannot be opened unless valve(s) RSS*MV8837B or 8838B is fully open, 8701A, 8701B 8701C, 8702A or 8702B or 8702C are fully closed, SI pump mini-flow valve 3SIL*MV8813 or (8814 and 8920) is (are) fully closed, and valves (3CHS*MV8511A and 8512A) or (8511B and 8512B) are fully closed.

To allow for the cycling of 3SIL*MV8804A/B, the charging pump alternate minimum flow path valves to the RWST must be closed. During a safety injection signal the normal minimum flow path valves 3CHS*MV8110 and 3CHS*MV8111A/B/C receive a signal to close. When 3SIL*MV8804B is opened, 3CHS*MV8511A, "MINFLOW ISOL," and 3CHS*MV8512A, "MINFLOW ISOL," cannot be opened without first closing 3SIL*MV8804B. Therefore, if an inadvertent SI occurs during the performance of the open stroke time, 3SIL*MV8804B must be closed first. Also, since 3CHS*MV8512A will not open automatically on SI, it will need to be opened manually from Main Board 3. Operator action is required to restore the minimum recirculation flow path for the charging pumps. The potential exists that a charging pump could be operated with all potential discharge paths isolated, until manual action to reposition a minimum flow valve is completed. Due to the potential loss of system function, deferral of testing until Cold Shutdown is consistent with the guidance provided in NUREG 1482 section 3.1.1.

These valves cannot be partially or fully opened unless the charging pumps minimum recirculation flow paths are isolated.

Alternative Frequency

These valves will be full-cycle exercised during cold shutdown in accordance with ISTC-3521(c).

Alternate Test Justification ATJ-042

ASME Code Component(s) Affected

3RCS*MV8000A 3RCS*MV8000B

Category B

Class 1

Safety Function

This normally open motor operated valve must close by manual operator action on the main control board should its associated power operated relief valve (PORV) become inoperable. This valve must also close by manual means from the main control board should its associated PORV stick open during operation to prevent an uncontrolled depressurization of the Reactor Coolant System (RCS) and limit loss of RCS inventory [Tech Spec Basis 3/4.4.4].

This valve is open during normal power operation only to provide a flow path from the pressurizer steam space to its associated PORV. This function is required for safety grade cold shutdown and accident mitigation. However, accident analysis allows for manually opening the PORV block valve to meet this function.

Justification

The safety function of the motor operated "block" valves is to be used by plant operators to isolate a PORV in case of excessive leakage, rendering the PORV inoperable. With one PORV inoperable, due to excessive seat leakage, Technical Specification 3.4.4 allows continued operation of the unit provided the associated block valve is closed with power maintained to the block valve.

As noted in SP 3601F.5 Section 4.6, re-opening the block valve after extended closure causes the associated PORV to "cycle", increasing the potential for leakage. The requirement to open the block valve for stroke timing in this condition represents an unnecessary challenge to the integrity of the RCS pressure boundary and increases the potential for further PORV degradation.

This assessment makes a partial stroke of the block valves impracticable. Shutting the block valve at normal operating pressure (NOP) can allow the line between the PORV and the block valve to depressurize. With the pressurizer at NOP, opening the block valve on a depressurized PORV causes the PORV to cycle, until the control space above the disc is pressurized sufficiently to offset steam pressure under the disc. Excessive cycling of the PORV can cause the PORV to leak, requiring closing of the block valve, as occurred on 7/3/14 (CR553129).

Alternate Test Justification ATJ-042

Extending the surveillance frequency of the PORV block valve does not significantly affect assurance that the block valve is capable of opening. The block valves have been shown to be reliable by operating experience and are also subject to the testing requirements of the motor operated valve testing program.

Alternative Frequency

These valves will be full cycle exercised during cold shutdown in accordance with ISTC-3521(c).

Alternate Test Justification ATJ-043

ASME Augmented Code Component(s) Affected

3GSN*V301	3GSN*V317	3GSN*V328
3GSN*V401	3GSN*V417	3GSN*V428
3GSN*V501	3GSN*V517	3GSN*V528
3GSN*V601	3GSN*V617	3GSN*V628

Category C

Class NC

Safety Function

The Feed Regulator and Feedwater isolation valves must close to isolate the Main Feedwater (FWS) system to prevent rapid Reactor Coolant System (RCS) heatup or cool down and isolate containment from the FWS system. The 3FWS*CTV41 valves are supported by skid-mounted check valves to supply nitrogen to their associated accumulator.

Justification

Stroke testing these valves closed during power operation would temporarily secure flow to an operating steam generator and potentially lead to a reactor trip on low steam generator water level. Partial closing of the feed control valves would temporarily reduce flow and potentially lead to steam flow feed flow mismatch and subsequent reactor trip.

There are a total of 12 Augmented Nitrogen supply GSN check valves located on the control panel (skid) of the FW isolation valve actuators, three check valves for each isolation valve. They provide the boundary between the safety-related and non-safety-related nitrogen supply to the actuator. The nitrogen supply piping to the actuators for 3FWS*CTV41A-D (OPEN/CLOSE) is classified as non-code (NON POWER PIPING) nuclear safety-related. The check valve's closure function is verified during the pressure drop test once each refueling.

The open function is considered skid-mounted and tested per TP-06. The open functions of valve 3GSN*VX17 is verified during normal operation by verifying nitrogen pressure to the accumulator is maintained. The open function of the back up nitrogen supply 3GSN*VX01 and the pressure regulator 3GSN*VX28 is verified by maintenance of the accumulator pressures within the allowable range of operation when called upon to replace the normal nitrogen supply path.

Alternative Frequency

The Augmented 3GSN check valves will be closure tested during refueling. The open function is tested during the IST of the 3FWS*CTV41 valves per TP-06.

Alternate Test Justification ATJ-044

ASME Code Component(s) Affected

3SWP*MOV54A 3SWP*MOV54B
3SWP*MOV54C 3SWP*MOV54D

Category B

Class 3

Safety Function

These normally closed motor operated valves must open automatically upon receipt of a Containment Depressurization Actuation (CDA) signal to provide a flow path through the A Containment Recirculation Spray (RSS) Coolers.

Justification

Testing these valves is a complex evolution requiring an interlock associated with 3SWP*MOV50A/B to be defeated (temporary modification). This action allows opening the 3SWP*MOV54s without a Containment Depressurization Actuation (CDA) signal present. Entry into LCO 3.7.4 during modes 1-4 is required for the duration the temporary modification is installed to defeat the interlock. This makes one train of Containment Recirculation Spray and Service Water (SWP) systems inoperable. When the valves are opened, service water is introduced into the RSS heat exchangers which is then required to be drained, the heat exchanger flushed with demineralized water, and then drained again. This process takes approximately 8-10 hours per heat exchanger. This results in accruing a significant amount of Maintenance Rule unavailability on the RSS system, and additional time on the SWP system.

The valves were originally scheduled for inservice testing each cold shutdown (modes 5,6,7). During cold shutdown, the LCO is not applicable however, defeating the interlock in modes 1-4 every 6 months to allow RSS heat exchanger flushing was evaluated and determined acceptable from a plant risk perspective. The flushing evolution provides the ideal opportunity to perform the stroke time and position indication tests without additional plant risk.

DENC committed to perform these flushes (LER 95-011-00) at specific times throughout the year to minimize the vulnerability from plantigrade attachment. The flushes are scheduled to minimize the potential for large mussel colony infestation of upstream piping and subsequent heat exchanger fouling. Ideally, the flushes would be performed in late spring and early fall.

Alternative Frequency

These valves will be cycle exercised every 6 months in accordance with III-3721.

ATTACHMENT 4.8

STATION TECHNICAL POSITION INDEX

Technical Position No.	Description
TP-01	Bi-directional Testing of Check Valves
TP-02	Check Valve Condition Monitoring
TP-03	Fail-Safe Testing of Valves
TP-04	Testing of Power Operated Control Valves
TP-05	Classification of Skid Mounted Components
TP-06	Correlation between Borated Water, Salt water and H2O
TP-07	Valve Position Indication Testing Augmented By System Parameter Observation
TP-08	Manual Exercising of Motor Operated Valves
TP-09	Valve Limiting Stroke Times

ATTACHMENT 4.10

STATION TECHNICAL POSITIONS

Technical Position TP-01

Bi-directional Testing of Check Valves

Purpose

The purpose of this Technical Position is to establish the station position for the verification of the non-safety direction exercise testing of check valves by normal plant operations.

Applicability

This Technical Position is applicable to testing of the non-safety function (direction) of check valves which are included in the Inservice Testing Program. This position applies to those check valves required to be tested in accordance with Subsection ISTC and Appendix II - Condition Monitoring (ASME OM Code 2012 Edition). This Technical Position does not apply to testing of the safety function (direction) of check valves included in the Inservice Testing Program.

Background

The ASME OM Code 2012 Edition section ISTC-3550, "Valves in Regular Use", states:

> "Valves that operate in the course of plant operation at a frequency that would satisfy the exercising requirements of this Subsection need not be additionally exercised, provided that the observations otherwise required for testing are made and analyzed during such operation and recorded in the plant record at intervals no greater than specified in ISTC-3510."

Section ISTC-3510 requires that check valves shall be exercised nominally every 3 months with exceptions (for extended periods) referenced.

Section ISTC-5221(a)(2) states:

> "Check valves that have a safety function in only the open direction shall be exercised by initiating flow and observing that the obturator has traveled [to] either the full open position or to the position required to perform its intended function(s) (see ISTA-1100), and verify closure."

Section ISTC-5221(a)(3) states:

> "Check valves that have a safety function in only the close direction shall be exercised by initiating flow and observing that the obturator has traveled [to] at least the partially open position, and verify that on cessation or reversal of flow, the obturator has traveled to the seat.

Technical Position TP-01

Observations shall be made by observing a direct indicator (e.g., a position-indicating device) or by other positive means (e.g., changes in system pressure, flow rate, level, temperature, seat leakage, testing, or nonintrusive testing results)."

"The partially open position should correspond to the normal or expected system flow."

Normal or expected system flow may vary with plant configuration and alignment; however, the open "safety function" of a check valve typically requires a specified design accident flow rate. Since MPS3 Operations staff is trained in recognizing normal plant conditions, Operator judgment is acceptable in determining the check valve non-safety direction by obtaining normal or expected flow rates for the plant operating condition.

In summary, check valve non-safety function direction is satisfactorily demonstrated by verifying closure or passing normal or expected flow as applicable.

Position

DENC will verify the non-safety position of check valves included in the Inservice Testing Program. In lieu of a dedicated surveillance to perform the non-safety direction testing, the following alternate verifications may be performed as follows:

1. Observation of plant processes that a check valve is satisfying its non-safety direction function may used. As an example, a check valve that has a safety function only in the closed direction and normally provides a flow path to maintain plant operations. If the check valve is not open to pass flow, an alarm or indication would identify a problem to the operator. The operator would respond to take appropriate actions. A Condition Report would then be generated for the abnormal plant condition which would identify the check valve failure.

2. Observation of plant logs and other records satisfied by Operator or Engineering reviews may be an acceptable method for verifying a check valves non-safety direction during normal plant operations.

Technical Position TP-01

The open/closed non-safety function shall be recorded at a frequency required by ISTC-3510, nominally every 3 months, with exceptions as provided, in plant records such as MPS3 Operating Logs, Electronic Rounds, chart recorders, automated data loggers, etc. The safety function direction testing requires a Quality Record in the form of a surveillance test. Records as indicated above are satisfactory for the non-safety direction testing. A condition report shall be generated for any issues regarding check valve operability.

Justification

This Technical Position requires that the method of determining the non-safety position be established and documented in either the Condition Monitoring Plan or the IST Bases Document. The plant systems and operator actions provide for the observations and analysis that the valve is satisfying its non-safety function. Additionally, the recording of parameters which demonstrate valve position is satisfied at a frequency in accordance with ISTC-3510. These actions collectively demonstrate the non-safety position of Inservice Testing Program check valves in regular use as required by ISTC-3550.

Technical Position TP-02

Check Valve Condition Monitoring

Purpose

The purpose of this Technical Position is to document MPS3's position on establishing and implementing a Check Valve Condition Monitoring Program in accordance with mandatory Appendix II of the ASME OM Code 2012 Edition. The Condition Monitoring Program specified in Appendix II provides certain flexibility in establishing test types, examinations, and preventive maintenance activities along with their associated intervals, when justified based on check valve performance and operating condition.

Applicability

This Technical Position is applicable to certain valves or groups of valves as permitted by ISTC-5222, Condition Monitoring Program. All valves tested as part of the Condition Monitoring Program will be denoted by "CM-XX," where XX is the valve's Condition Monitoring group number, under Technical Position in the IST Program Plan.

Position

DENC will implement a Check Valve Condition Monitoring program for selected valves or groups of valves in accordance with ISTC-5222 and Appendix II. The following guidelines will be adhered to for administering this program. Additionally, if the Appendix II program is discontinued for a valve or group of valves, then the requirements of ISTC-3510, ISTC-3520, ISTC-3550, and ISTC-5221 shall be implemented.

1. Purpose

   The purpose of the Check Valve Condition Monitoring Program is to improve check valve performance and to optimize testing, examination, and preventive maintenance activities in order to maintain the continued acceptable performance of a select valve or group of valves.

2. Scope

   The MPS3 Valve Check Valve Condition Monitoring Program will be applied to individual check valves or groups of check valves which are either candidates for improved performance or candidates whose performance can be optimized.

Technical Position TP-02

a. Candidates for improved valve performance are those check valves which may exhibit one or more of the following attributes:

   i. The valve(s) exhibits an unusually high failure rate during inservice testing or operations;

   ii. The valve(s) cannot be exercised under normal operating conditions or during shutdown;

   iii. The valve(s) exhibits unusual, abnormal, or unexpected behavior during exercising or operations.

b. Candidates for optimization of testing, examination, and preventive maintenance activities are those check valves with documented acceptable performance that:

   i. Have had their performance improved under this program;

   ii. Cannot be exercised or are not readily exercised during normal operating condition or during shutdown;

   iii. Can only be disassembled and examined; or

   iv. It is decided that all of the associated activities of the valve or group will be optimized.

3. Groupings

For valves which are grouped together the following valve attributes shall be considered:

a. Manufacturer, design, size, service media, materials of construction, and orientation.

b. Maintenance and modification history.

c. Test history and results.

d. System design shall be considered to determine potential flow instabilities, degree of disassembly, and the need for tolerance and dimensional measurements.

Technical Position TP-02

4. Analysis

An analysis of the test and maintenance history shall be performed to establish the basis for specifying inservice testing, examination, and preventive maintenance activities. This analysis shall include the following:

a. Identify any common failure mode or corrective maintenance patterns.
b. Analyze these common patterns to determine their significance and to identify potential failure mechanisms:
    i. Determine if certain preventive maintenance activities would mitigate the failure or maintenance patterns;
    ii. Determine if certain condition monitoring activities are possible and effective in monitoring for these failure mechanisms;
    iii. Determine if periodic disassembly and examination would be an effective method in monitoring for these failure mechanisms.
    iv. Determine if the valve grouping is required to be changed.

5. Condition Monitoring Activities

a. Performance Improvement Activities
    i. If sufficient information is not available or the results of the analysis performed in 4 above are not conclusive, an interim period not to exceed 2 refueling outages shall be established to determine the cause of the failure or maintenance patterns. The following activities shall be performed at sufficient intervals over the interim period.
        1. Identify interim tests (e.g. non-intrusive) to assess the performance of the valve or group of valves.
        2. Identify interim examinations to evaluate potential degradation mechanisms.
        3. Identify other types of analysis to be performed which will assess check valve condition.
        4. Identify which of these activities will be performed on each valve.
        5. Identify the interval of each activity

Technical Position TP-02

ii. Complete or revise the condition monitoring test plans to document the check valve program performance improvement activities and their associated frequencies.

iii. Perform these activities at their assigned intervals unit:

1. Sufficient information is obtained to permit an adequate analysis.
2. Until the end of the interim period (2 refueling outages or 3 years, whichever is longer).

iv. After performance, a review shall be performed for each activity to determine if changes to the program are required. If changes are required, the program shall be revised before the next performance of the activity.

b. Optimization of Condition Monitoring Activities

i. If sufficient information is available to assess the performance adequacy of the check valve or group, then the following activities shall be performed:

1. Identify applicable preventive maintenance activities including the intervals that are required to maintain the continued acceptable performance of the check valve or group of check valves.
2. Identify the applicable examination activities including the interval that will be used to periodically assess the condition of each check valve or group of check valves.
3. Identify the applicable test activities including intervals that will be used to periodically verify the acceptable performance of each check valve or group of check valves.
4. Identify which of these activities, including the interval, will be performed on each valve in the group.

ii. Revise the condition monitoring plans to document the optimized condition monitoring program activities and associated intervals for each activity.

iii. Continue performance of these activities at their associated intervals.

Technical Position TP-02

iv. Review the results of the performance of each activity to determine if changes to the optimized condition monitoring program are required.

6. Test Requirements and Frequency

The following requirements apply when implementing the above plans for a single valve or group of valves

a. Valve opening and closing functions must be demonstrated when flow testing or examination methods (non-intrusive, or disassembly and inspection) are used.

b. The initial interval for new tests and associated examinations may not exceed two fuel cycles or 3 years, whichever is longer.

c. Extension of the initial interval may not exceed one fuel cycle per extension with the maximum interval not to exceed 10 years.

d. Trending and evaluation of existing data must be used to reduce or extend the time interval between tests.

7. Documentation

The condition monitoring program shall be documented per the Check Valve Condition Monitoring Administrative procedure. The plan for each check valve or group of check valves shall be documented in the Condition Monitoring Plan and shall contain as a minimum the following information:

a. The list of valves in each group including the group basis.
b. Date the valve or group of valves was evaluated for inclusion or exclusion from the condition monitoring program.
c. Safety function of valve or valve group.
d. Analysis/justification which forms the basis for the program.
e. Identification of the failure or maintenance patterns for each valve
f. Condition monitoring activities including intervals for each valve or valve group.
g. Trending attributes and bases for the associated valve or valve group.

Technical Position TP-03

Fail-Safe Testing of Valves

Purpose

The purpose of this Technical Position is to establish the station position for fail-safe testing of valves in conjunction with stroke time exercising or position indication testing.

Applicability

This Technical Position is applicable to valves with fail-safe actuators required to be tested in accordance with ISTC-3560.

Background

The ASME OM Code 2012 Edition section ISTC-3560 requires;

> "Valves with fail-safe actuators shall be tested by observing the operation of the actuator upon loss of valve actuating power in accordance with the exercising frequency of ISTC-3510."

Section ISTC-3510 states;

> "Active Category A, Category B, and Category C check valves shall be exercised nominally every 3 months..."

Position

In cases where normal valve operator action moves the valve to the open or closed position by de-energizing the operator electrically, by venting air, or both, the exercise test will satisfy the fail-safe test requirements and an additional test specific for fail-safe testing will not be performed.

Millstone Unit 3 Nuclear Plant will also use remote position indication as applicable to verify proper fail-safe operation, provided that the indication system for the valve is periodically verified in accordance with ISTC-3700.

Justification

Millstone Unit 3 Nuclear Plant Inservice Testing Program valves that fail open or closed upon loss of actuator power use the fail-safe mechanism to stroke the valve to its safety position. For example, an air operated valve that fails closed may use air to open the valve against spring force. When the actuator control switch is placed in the closed position, air is vented from the diaphragm and the spring moves the obturator to the closed position.

Technical Position TP-04

Testing of Power Operated Control Valves

Purpose

The purpose of this Technical Position is to establish the station position for testing of power-operated control valves that have only a fail-safe safety function.

Applicability

This Technical Position is applicable to power-operated control valves that have only a fail-safe safety function and are required to be tested in accordance with ISTC-3560.

Background

Code Case OMN-8 has been incorporated into the ASME OM Codes in ISTC-5100:

"..For power-operated control valves that only have a fail-safe safety function, the requirements for valve stroke time measurement testing, the associated stroke time test acceptance criteria, and any corrective actions that would result from stroke time testing need not be met..."

Position

No stroke time testing is required for these valves since this function is excluded from testing based on ISTC-5100. The fail-safe function of these valves will be tested in accordance with the ASME OM Code requirements of ISTC-3560.

Justification

ASME OM Code 2012 Edition, para ISTC-5100

Technical Position TP-05

Classification of Skid Mounted Components

Purpose

The purpose of this technical position is to clarify requirements for classification and testing of various skid mounted components.

Background

The ASME Code allows classification of some components as skid mounted when their satisfactory operation is demonstrated by the satisfactory performance of the associated major components. Testing of the major component is sufficient to satisfy IST requirements for skid mounted components. In section 3.4 of NUREG 1482, the NRC supports the designation of components as skid mounted:

> "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 the licensee documents this approach in the IST Program. This is acceptable for both Code class components and non-Code class components tested and tracked by the IST Program."

This definition in the ASME OM Code 2012 Edition states:

> ISTA-2000 DEFINITIONS
>
> *Skid mounted pumps and valves*: pumps and valves integral to or that support operation of major components, even though these components may not be located directly on the skid. In general, these pumps and valves are supplied by the manufacturer of the major component. Examples include:
>
> (a) diesel fuel oil pumps and valves
>
> (b) steam admission and trip throttle valves for high-pressure coolant injection turbine-driven pumps
>
> (c) steam admission and trip throttle valves for auxiliary feedwater turbine-driven pumps
>
> (d) solenoid-operated valves provided to control an air-operated valve

Additionally the Subsections pertaining to pumps (ISTB) and valves (ISTC) includes exclusions/exemptions for skid mounted components;

> ISTB-1200(c) Exclusions
>
> Skid-mounted pumps that are tested as part of the major component and are justified by the Owner to be adequately tested.

Technical Position TP-05

ISTC-1200 Exemptions

Skid-mounted valves are excluded from this Subsection provided they are tested as part of the major component and are justified by the Owner to be adequately tested.

Position

The 2012 ASME OM Code definition of skid mounted should be used for classification of components in the Millstone Unit 3 Inservice Testing Program. In addition, for a component to be considered skid mounted:

- The major component associated with the skid mounted component must be surveillance tested at a frequency sufficient to meet ASME Code test frequency for the skid mounted component.

- Satisfactory operation of the skid mounted component must be demonstrated by satisfactory operation of the major component.

- The IST Bases Document should describe the basis for classifying a component as skid mounted, and the IST Program Plan should reference this technical position for the component.

Justification

Classification of components as skid mounted eliminates the need for testing of sub components that are redundant with testing of major components provided testing of the major components demonstrates satisfactory operation of the "skid mounted" components.

Technical Position TP-06

Correlation between Borated Water , Salt water and H2O

Purpose

To document the acceptability of using an alternate test medium for set pressure and leakage testing of relief valves.

Applicability

This technical position meets the requirements of ASME OM Code 2012 Edition, I-8310 "Correlation"

Background

Millstone set pressure and leak tests its relief valves using H2O. Some of these valves are in systems that use borated water (CHS, SI, RHR) or salt water (SWP).

OM Code subparagraph I-8300 Alternative Test Media "Pressure relief devices may be subjected to set-pressure tests and seat tightness tests using a test medium (fluid and temperature) other than that for which they are designed, provided the testing complies with paras. I-8310, I8320, and I8330."

Subparagraph I-8310 states "Correlation of pressure relief device operation, with respect to the parameter under test, shall be established for the specified alternate media, as compared to the operating media."

This technical position will document the correlation and acceptability for use of H2O as a test medium.

Position

Use of H20 is acceptable for use in lieu of borated or salt water. There is no affect on set pressure due to variation in fluid density. Affects of density on leakage monitoring are more conservative for H2O and is acceptable for use.

Justification

For a pressure test, a valve is pressurized until the valve lifts off its seat and relieves pressure. Pressure testing uses H2O for all liquid service relief valve tests. Set pressure results are directly affected by disc area and applied spring force. Variations in fluid density should have no impact on the applied force. Use of H2O will therefore not change or alter the results of set pressure testing.

Technical Position TP-06

For a seat leakage/Tightness test, leakage past the valve seat is measured when the line is pressurized. Fluid flow through a pipe or orifice is inversely proportional to the fluid density. From reference 1, fluid flow can be calculated

For flow through a pipe: $Q = 236\ d^2\ (\Delta P / K\ \rho)^{0.5}$

For flow thru an orifice : $Q = 236\ d^2\ C\ (\Delta P / \rho)^{0.5}$

Where:
Q = flow rate (gpm)
d = internal diameter (in)
ρ = weight density of fluid (lb/ft^3)
ΔP = differential pressure (psig)
K = resistance coefficient
C =flow coefficient for orifices and nozzles

For both of the above formulas, the flow rate is inversely proportional to the density of the fluid. As the density of fluid increases, the lower the fluid flow rate will be. For leakage rate testing, this means that the lower the density of the test fluid, the higher the leakage rate at the same test pressure. Fluid density for H2O is likely to be lower than the fluid density of sea water or borated water at the corresponding temperature. Fluid density of borated water will be affected by the boric acid concentration of the fluid. Leak testing with H2O will yield conservative results for systems normally designed for sea water or borated water environments.

Therefore, it is acceptable to use H2O in place of borated or salt water for seat leakage testing.

References

1. Crane Technical Paper 410, 1991"Flow of Fluids through Valves, Fittings, and Pipe"
2. Saline Water Conversion Engineering Data Book, Second Edition, November 1971

Technical Position TP-07

Valve Position Verification Testing Augmented By System Parameter Observation

Purpose

To document the IST program process for verifying valve obturator position during position verification testing.

Applicability

Those valves in the IST program that have indicating lights in the main control room.

Background

Code of Federal Regulations:

10CFR50.55a(b)(3)(xi) Valve Position Indication. When implementing ASME OM Code, 2012 Edition, Subsection ISTC–3700, "Position Verification Testing," licensees shall verify that valve operation is accurately indicated by supplementing valve position indicating lights with other indications, such as flow meters or other suitable instrumentation, to provide assurance of proper obturator position.

ASME OM Code 2012 Edition:

ICTC-3700, Position Verification Testing, Valves with remote position indicators shall be observed locally at least once every 2 yr to verify that valve operation is accurately indicated. Where practicable, this local observation should be supplemented by other indications such as use of flow meters or other suitable instrumentation to verify obturator position. These observations need not be concurrent. Where local observation is not possible, other indications shall be used for verification of valve operation.

Position verification for active MOVs shall be tested in accordance with Mandatory Appendix III of this Division.

Mandatory Appendix III:

III-3300(e), Inservice Test, Remote position indication shall be verified locally during inservice testing or maintenance activities.

Technical Position TP-07

Position

Supplemental indicators will be used to verify that the obturator of a valve has not separated from the stem when a valve is cycled and the indicating lights are checked. This observation will be performed in both the open and closed direction of the valve to ensure that stem-disk separation has not occurred, though the operations do not need to be concurrent. The observations will take place at least once every two years except for active motor operated valves that fall under the scope of Mandatory Appendix III. Valves within the scope of Mandatory Appendix III will have the obturator position testing performed during the valve's diagnostic test and frequency.

The procedures that will credit the obturator observation will be documented in the IST Bases document.

Justification

The actions stated above will ensure that a stem-disk separation is identified during the observation, should it occur.

Technical Position TP-08

Manual Exercising of Motor Operated Valves

Purpose

Establish guidelines for testing the manual operation of motor operated valves.

Applicability

3RHS*MV8701B	3MSS*MOV74B
3RHS*MV8702A	3MSS*MOV74C
3MSS*MOV74A	3MSS*MOV74D

Background

ASME OM Code Section ISTC-3540 requires manual valves to be full-stroke exercised at least once every 2 years. In addition Active Category A and B valves shall be exercised nominally every 3 months except as provided by ISTC-3520. The Code is silent on how to accomplish an exercise test of a Motor Operated Valve (MOV) that is also credited to move by use of the handwheel.
When cycling a MOV manually, caution is needed so as not to exceed MOV structural limits. It doesn't require a lot of handwheel torque/rim pull to reach valve limits. Typical valve specifications specify a rim pull (force) to 80 lbs for manual valves with manual gear operators.

Position

In lieu of cycling the valve stem fully open and closed using the MOV handwheel, the following methodology can be performed:

(a) from the existing valve position, start partially closing (or opening) the MOV manually at least 1/4 inch of valve stem travel or rotation which demonstrates the motor operator has disengaged correctly and the handwheel has engaged properly, and

(b) complete cycling of the valve fully closed (or open) and then back to the starting position by use of the motor operator, demonstrating that the valve disc/stem has moved without binding.

This manual partial stroke method followed by the full stroke using the motor operator may be utilized for MOVs that are required to be manually opened, manually closed, or manually throttled. This type of test is acceptable to demonstrate that the MOV is capable of manual operation in either direction since the valve stem is verified to fully move during the motor actuation. Therefore, a full-stroke exercise test using the manual hand wheel is not required.

Technical Position TP-08

As seen below, the approximate handwheel torque is calculated For the RHS valves

Actuator Size = SMB-1,	from Calc 89-094-01000ES Rev 007
OAR = 97.81,	from Calc 89-094-01000ES Rev 007
HGR = 49.0:1,	from VTM 25205-676-001 Tab A11 Limitorque SEL-11 based on SMB-1 with OAR of 97.81

Handwheel gear ratio is 49.0 to 1

HRE = 0.25,	from VTM 25205-676-001 Tab A11 Limitorque SEL-11 based on SMB-1 with OAR of 97.81

handwheel gear ratio efficiency is 25% for a handwheel gear ratio of 49.0 to 1

HSGR = 1 (no spur on handwheel, therefore 1 is used to calculation purpose)

HSGRE = 1 (no spur on handwheel, therefore 1 is used to calculation purpose)

Threads Per Inch (TPI) = 4,	from Calc 89-094-01000ES Rev 007
Starts = 1,	from Calc 89-094-01000ES Rev 007
Seat OD = 10.50 inches	from Calc 89-094-01000ES Rev 007
ReqACTTORQUE = 800 ft-lbs,	from Calc 89-094-01000ES Rev 007 structural limit, test limit is 700 ft-lbs

Approximate Handwheel Turns for Full Travel = ((Seat OD * (HR * HSGR) * TPI) / Starts)
= ((10.5 * (49.0 * 1) * 4) / 1)
= 2058

Approximate Handwheel Shaft Torque to Reach MOV limit
= ReqACTTORQUE / ((HR*HRE)*(HSGR*HSGRE))
= 800 / (49.0 * 0.25) * (1 * 1)
= 65 ft-lbs or 87 lbs of rim pull {65 ft-lbs / 0.75 ft (9 inches, assumed and 18 inch handwheel)}
= 57 ft-lbs or 76 lbs of rim pull to obtain MOV test limits

Justification

This methodology is consistent with the Unit 3 Technical Requirements Manual Section 7.4.1 as discussed in Bases No. 16.

Technical Position TP-09

Valve Limiting Stroke Times

Purpose

To document the process for utilizing limiting values associated with power operated valve stroke times.

Applicability

Those valves in the IST program that receive stroke time tests, have limiting values assigned, and do not have a specific design or licensing basis stroke time limit.

Background

Subsection ISTC states that the limiting value(s) of full stroke time of each power operated valve shall be specified by the Owner. Stroke times that exceed this limiting value shall be immediately declared inoperable. A stroke time that falls between the 'normal' acceptance criteria and the limiting value shall be immediately retested or declared inoperable. If the second set of data meets the acceptance criteria, the cause of the initial deviation shall be analyzed and the results documented in the record of tests. If the second set of data does not meet the acceptance criteria the valve should be declared inoperable.

Position

Consistent with industry practice, the below table identifies the limiting stroke time values that should be applied to power operated valves that do not have more conservative criteria in their design or licensing basis.

Limiting Valve Stroke Time		
Actuator Type	**Reference Stroke Time (STr) Range**	**Limiting Stroke Time**
Motor Operated	**< 10 Seconds**	**1.5 x STr**
Motor Operated	**> 10 Seconds**	**1.3 x STr**
Other Power Operated	**< 10 Seconds**	**2.0 x STr**
Other Power Operated	**> 10 Seconds**	**1.5 x STr**
Designated Rapid Acting Valves	**< 2.0 Seconds**	**< 2.0 Seconds**

Justification

The position stated above is defining the owner specified limits as allowed by the OM Code.

ATTACHMENT 4.11

INSERVICE TESTING PUMP TABLE

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CCE*P1A	26905-1 / E-8	Standard	A	C-H	MTR	3	No	CCE
DESCRIPTION: CHARGING PUMP SEAL COOLING								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CCE*P1B	26905-1 / C-10	Standard	A	C-H	MTR	3	No	CCE
DESCRIPTION: CHARGING PUMP SEAL COOLING								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CCI*P1A	26914-1 / I-5	Standard	B	C-H	MTR	3	No	CCI
DESCRIPTION: SAFETY INJECTION PUMP COOLING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	P-01
C-V	24M	P-03
DP	3M	
Q	3M	P-01

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CCI*P1B	26914-1 / I-9	Standard	B	C-H	MTR	3	No	CCI
DESCRIPTION: SAFETY INJECTION PUMP COOLING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	P-01
C-V	24M	P-03
DP	3M	
Q	3M	P-01

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CCP*P1A	26921-1 / E-5	Standard	A	C-H	MTR	3	No	CCR
DESCRIPTION: REACTOR PLANT COMPONENT COOLING PUMP								

TEST	FREQUENCY	NOTES

C-DP	24M	P-04
C-Q	24M	P-04
C-V	24M	P-04, P-03
DP	3M	P-04
Q	3M	P-04
V	3M	P-04, P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CCP*P1B	26921-1 / E-8	Standard	A	C-H	MTR	3	No	CCR
DESCRIPTION: REACTOR PLANT COMPONENT COOLING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	P-04
C-Q	24M	P-04
C-V	24M	P-04, P-03
DP	3M	P-04
Q	3M	P-04
V	3M	P-04, P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CCP*P1C	26921-1 / E-6	Standard	A	C-H	MTR	3	No	CCR
DESCRIPTION: REACTOR PLANT COMPONENT COOLING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	P-04
C-Q	24M	P-04

C-V	24M	P-04, P-03
DP	3M	P-04
Q	3M	P-04
V	3M	P-04, P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CHS*P2A	26904-3 / K-5	Standard	A	C-H	MTR	3	No	CVC
DESCRIPTION: BORIC ACID TRANSFER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CHS*P2B	26904-3 / K-7	Standard	A	C-H	MTR	3	No	CVC
DESCRIPTION: BORIC ACID TRANSFER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	

Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CHS*P3A	26904-1 / H-8	Standard	A	C-H	MTR	2	No	CVC
DESCRIPTION: CHEMICAL VOLUME CONTROL CHARGING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	P-05
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CHS*P3B	26904-1 / H-11	Standard	A	C-H	MTR	2	No	CVC
DESCRIPTION: CHEMICAL VOLUME CONTROL CHARGING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	P-05
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3CHS*P3C	26904-1 / H-10	Standard	A	C-H	MTR	2	No	CVC
DESCRIPTION: CHEMICAL VOLUME CONTROL CHARGING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	P-05
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3EGF*P1A	26921-1 / B-3	Standard	B	VLS	MTR	3	No	DFS
DESCRIPTION: 'A'EMERG.GEN.FUEL OIL XFER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM

3EGF*P1B	26921-1 / B-7	Standard	B	VLS	MTR	3	No	DFS
DESCRIPTION: 'B'EMERG.GEN.FUEL OIL XFER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3EGF*P1C	26921-1 / C-3	Standard	B	VLS	MTR	3	No	DFS
DESCRIPTION: 'A'EMERG.GEN.FUEL OIL XFER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3EGF*P1D	26921-1 / C-7	Standard	B	VLS	MTR	3	No	DFS
DESCRIPTION: 'B'EMERG.GEN.FUEL OIL XFER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	

C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3FWA*P1A	26930-2 / G-5	Standard	B	C-H	MTR	3	No	AFW
DESCRIPTION: MOTOR DRIVEN STEAM GENERATOR AUXILIARY FEED PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3FWA*P1B	26930-2 / E-8	Standard	B	C-H	MTR	3	No	AFW
DESCRIPTION: MOTOR DRIVEN STEAM GENERATOR AUXILIARY FEED PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3FWA*P2	26930-2 / D-10	Standard	B	C-H	TURB	3	Yes	AFW
DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-S	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
S	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3HVK*P1A	26951-4 / F-4	Standard	A	C-H	MTR	3	No	CBW
DESCRIPTION: CONTROL BUILDING CHILLED WATER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3HVK*P1B	26951-4 / F-9	Standard	A	C-H	MTR	3	No	CBW
DESCRIPTION: CONTROL BUILDING CHILLED WATER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3QSS*P3A	26915-1 / I-6	Standard	B	C-H	MTR	2	No	QSS
DESCRIPTION: QUENCH SPRAY PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3QSS*P3B	26915-1 / I-8	Standard	B	C-H	MTR	2	No	QSS

DESCRIPTION: QUENCH SPRAY PUMP

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3RHS*P1A	26912-1 / C-6	Standard	A	C-V	MTR	2	No	RHR

DESCRIPTION: RESIDUAL HEAT REMOVAL PUMP (MTR SN # 2S-75)

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	P-02
Q	3M	P-02
V	3M	P-02, P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3RHS*P1B	26912-1 / C-10	Standard	A	C-V	MTR	2	No	RHR

DESCRIPTION: RESIDUAL HEAT REMOVAL PUMP (MTR SN # 2S-80)

TEST	FREQUENCY	NOTES
C-DP	24M	

C-Q	24M	
C-V	24M	P-03
DP	3M	P-02
Q	3M	P-02
V	3M	P-02, P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3RSS*P1A	26912-3 / E-10	Standard	B	VLS	MTR	2	No	CRS
DESCRIPTION: CONTAINMENT RECIRCULATING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	ISTB-3430
C-Q	24M	ISTB-3430
C-V	24M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3RSS*P1B	26912-3 / E-4	Standard	B	VLS	MTR	2	No	CRS
DESCRIPTION: CONTAINMENT RECIRCULATING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	ISTB-3430
C-Q	24M	ISTB-3430
C-V	24M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM

3RSS*P1C	26912-3 / E-8	Standard	B	VLS	MTR	2	No	CRS
DESCRIPTION: CONTAINMENT RECIRCULATING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	ISTB-3430
C-Q	24M	ISTB-3430
C-V	24M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3RSS*P1D	26912-3 / E-2	Standard	B	VLS	MTR	2	No	CRS
DESCRIPTION: CONTAINMENT RECIRCULATING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	ISTB-3430
C-Q	24M	ISTB-3430
C-V	24M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SFC*P1A	26911-1 / F-9	Standard	A	C-H	MTR	3	No	SFC
DESCRIPTION: FUEL POOL COOLING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SFC*P1B	26911-1 / F-11	Standard	A	C-H	MTR	3	No	SFC
DESCRIPTION: FUEL POOL COOLING PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SIH*P1A	26913-2 / C-2	Standard	B	C-H	MTR	2	No	HPI
DESCRIPTION: SAFETY INJECTION PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SIH*P1B	26913-2 / C-10	Standard	B	C-H	MTR	2	No	HPI
DESCRIPTION: SAFETY INJECTION PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SWP*P1A	26933-1 / B-9	Standard	A	VLS	MTR	3	No	SWS
DESCRIPTION: SERVICE WATER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SWP*P1B	26933-1 / F-4	Standard	A	VLS	MTR	3	No	SWS
DESCRIPTION: SERVICE WATER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SWP*P1C	26933-1 / B-7	Standard	A	VLS	MTR	3	No	SWS
DESCRIPTION: SERVICE WATER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SWP*P1D	26933-1 / F-2	Standard	A	VLS	MTR	3	No	SWS
DESCRIPTION: SERVICE WATER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	

C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SWP*P2A	26933-4 / L-7	Standard	A	C-H	MTR	3	No	SWS
DESCRIPTION: CONTROL BLDG AIR CONDITIONING BOOSTER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SWP*P2B	26933-4 / L-3	Standard	A	C-H	MTR	3	No	SWS
DESCRIPTION: CONTROL BLDG AIR CONDITIONING BOOSTER PUMP								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03

DP	3M	
Q	3M	
V	3M	P-03

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SWP*P3A	26933-4 / H-11	Standard	B	C-H	MTR	3	No	SWS
DESCRIPTION: MCC AND ROD CONTROL AREA AIR CONDITIONING BOOSTER								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

PUMP NO.	DRAWING NO./COOR.	PROGRAM	GROUP	TYPE	DRIVER	CLASS	VARIABLE SPEED	SYSTEM
3SWP*P3B	26933-4 / M-1	Standard	B	C-H	MTR	3	No	SWS
DESCRIPTION: MCC AND ROD CONTROL AREA AIR CONDITIONING BOOSTER								

TEST	FREQUENCY	NOTES
C-DP	24M	
C-Q	24M	
C-V	24M	P-03
DP	3M	
Q	3M	

ATTACHMENT 4.12

INSERVICE TESTING VALVE TABLE

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3BDG*CTV22A	26923-1 / E-4	Standard	GL	AO	4.0	2	B	Active	O	C	C	BDG
DESCRIPTION: STEAM GENERATOR OUT TO BLOWDOWN TANK												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3BDG*CTV22B	26923-1 / E-6	Standard	GL	AO	4.0	2	B	Active	O	C	C	BDG
DESCRIPTION: STEAM GENERATOR TO BLOWDOWN TANK												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3BDG*CTV22C	26923-1 / E-8	Standard	GL	AO	4.0	2	B	Active	O	C	C	BDG
DESCRIPTION: STEAM GENERATOR TO BLOWDOWN TANK												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3BDG*CTV22D	26923-1 / E-11	Standard	GL	AO	4.0	2	B	Active	O	C	C	BDG
DESCRIPTION: STEAM GENERATOR OUT TO BLOWDOWN TANK												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*AOV26A	26905-1 / E-5	Standard	GL	AO	2.0	3	B	Active	O	C	C	CCE
DESCRIPTION: A' CHARGING PUMP COOLING PUMP SUCTION XCONN												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*AOV26B	26905-1 / D-5	Standard	GL	AO	2.0	3	B	Active	O	C	C	CCE
DESCRIPTION: 'B' CHARGING PUMP COOLING PUMP SUCTION XCONN												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3CCE*AOV30A	26905-1 / G-8	Standard	GL	AO	2.0	3	B	Active	O	C	C	CCE
DESCRIPTION: 'A' CHARGING PUMP COOLING PUMP DISCHARGE TRANSFER CONNECTION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*AOV30B	26905-1 / G-9	Standard	GL	AO	2.0	3	B	Active	O	C	C	CCE
DESCRIPTION: 'B' CHARGING PUMP COOLING PUMP DISCHARGE TRANSFER CONNECTION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*RV40A	26905-1 / E-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCE
DESCRIPTION: 3CCE-E1 Discharge												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*RV40B	26905-1 / C-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCE
DESCRIPTION: 3CCE-E1 Discharge												

TEST	FREQUENCY	Notes

SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*RV43A	26905-1 / H-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCE
DESCRIPTION: Charging Pump A Oil Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*RV43B	26905-1 / N-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCE
DESCRIPTION: Charging Pump B Oil Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*RV43C	26905-1 / K-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCE
DESCRIPTION: Charging Pump C Oil Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*TV37A	26905-1 / E-2	Standard	GL	AO	2.0	3	B	Active	O	O	O	CCE
DESCRIPTION: A CHARGE PUMP COOLER TEMPERATURE CONTROL												

TEST	FREQUENCY	Notes
FSO	3M	TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*TV37B	26905-1 / C-2	Standard	GL	AO	2.0	3	B	Active	O	O	O	CCE
DESCRIPTION: CHARGING PUMP (B) COOLER TEMPERATURE CONTROL												

TEST	FREQUENCY	Notes
FSO	3M	TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*V001	26905-1 / F-8	Standard	CK	SA	2.0	3	C	Active	SYS	OC	NA	CCE
DESCRIPTION: CHECK VALVE CHG. PP. COOLING PP "A"												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-27
CVO	CM	TP-02 : CM-27

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCE*V013	26905-1 / D-10	Standard	CK	SA	2.0	3	C	Active	SYS	OC	NA	CCE
DESCRIPTION: CHECK VALVE CHG PP COOLING PP "B"												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-27
CVO	CM	TP-02 : CM-27

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCI*RV31A	26914-1 / G-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCI
DESCRIPTION: Safety Injection Pump Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCI*RV31B	26914-1 / G-7	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCI
DESCRIPTION: Safety Injection Cooling Pump B Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCI*RV36A	26914-1 / L-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCI
DESCRIPTION: Safety Injection Pump Bearing Oil Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCI*RV36B	26914-1 / L-7	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCI
DESCRIPTION: Safety Injection Pump Bearing Oil Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCI*V001	26914-1 / J-5	Standard	CK	SA	1.0	3	C	Active	SYS	O	NA	CCI
DESCRIPTION: CHECK VALVE HPSI COOLING PP A DIS. CHK.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-28
CVO	CM	TP-02 : CM-28

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCI*V008	26914-1 / J-9	Standard	CK	SA	1.0	3	C	Active	SYS	O	NA	CCI
DESCRIPTION: CHECK VALVE HPSI PP COOLING PP B DIS. CHK.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-28
CVO	CM	TP-02 : CM-28

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV10A	26921-1 / M-5	Standard	BF	AO	16.0	3	B	Active	O	C	C	CCR
DESCRIPTION: TRAIN 'A' NON-SAFETY HEADER SUPPLY ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV10B	26921-1 / M-6	Standard	BF	AO	12.0	3	B	Active	O	C	C	CCR
DESCRIPTION: TRAIN B REACTOR PLANT CLOSED COOLING WATER NON-SAFETY HEADER												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV178A	26921-2 / J-5	Standard	GL	AO	1.5	3	B	Active	O	C	C	CCR

DESCRIPTION: RPCCW RETURN 1 RCP THERMAL BARRIER

TEST	FREQUENCY	Notes
FSC	CS	ATJ-28 : TP-03
PIT	24M	
STC	CS	ATJ-28

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV178B	26921-2 / K-9	Standard	GL	AO	1.5	3	B	Active	O	C	C	CCR

DESCRIPTION: RPCCW RETURN 2 REACTOR COOLANT PUMP THERMAL BARRIER

TEST	FREQUENCY	Notes
FSC	CS	ATJ-28 : TP-03
PIT	24M	
STC	CS	ATJ-28

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV178C	26921-2 / H-9	Standard	GL	AO	1.5	3	B	Active	O	C	C	CCR

DESCRIPTION: RPCCW RETURN 3 RCP THERMAL BARRIER

TEST	FREQUENCY	Notes
FSC	CS	ATJ-28 : TP-03
PIT	24M	
STC	CS	ATJ-28

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV178D	26921-2 / G-5	Standard	GL	AO	1.5	3	B	Active	O	C	C	CCR

DESCRIPTION: RPCCW RETURN 4 RCP THERMAL BARRIER

TEST	FREQUENCY	Notes
FSC	CS	ATJ-28 : TP-03
PIT	24M	
STC	CS	ATJ-28

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV179A	26921-2 / L-2	Standard	BF	AO	6.0	3	B	Active	C	C	C	CCR
DESCRIPTION: TRAIN (A) RPCCW SUPPLY HEADER												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV179B	26921-2 / M-2	Standard	BF	AO	6.0	3	B	Active	C	C	C	CCR
DESCRIPTION: TRAIN (B) RPCCW SUPPLY HEADER												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV180A	26921-2 / J-2	Standard	BF	AO	6.0	3	B	Active	C	C	C	CCR
DESCRIPTION: TRAIN (A) RPCCW RETURN HEADER												

TEST	FREQUENCY	Notes

FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV180B	26921-2 / K-2	Standard	BF	AO	6.0	3	B	Active	C	C	C	CCR
DESCRIPTION: TRAIN (B) TPCCW RETURN HEADER												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV194A	26921-1 / B-6	Standard	BF	AO	16.0	3	B	Active	O	C	C	CCR
DESCRIPTION: 'A' RX PLANT COMPONENT COOL WATER NON-SAFETY HDR												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV194B	26921-1 / B-7	Standard	BF	AO	12.0	3	B	Active	O	C	C	CCR
DESCRIPTION: TRAIN 'B' REACTOR PLANT COMPONENT COOLING WATER NON-SAFETY HEADER												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV197A	26921-1 / L-5	Standard	BF	AO	16.0	3	B	Active	O	C	C	CCR
DESCRIPTION: SUPPLY/RETURN PRIMARY ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV197B	26921-1 / L-6	Standard	BF	AO	12.0	3	B	Active	O	C	C	CCR
DESCRIPTION: RPCC WATER SUPPLY/RETURN SECONDARY ISOL												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV19A	26921-1 / C-6	Standard	BF	AO	16.0	3	B	Active	O	C	C	CCR
DESCRIPTION: TRAIN "A" REACTOR PLANT CLOSED COOLING WATER NON-SAFETY HEADER												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	

STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*AOV19B	26921-1 / C-7	Standard	BF	AO	12.0	3	B	Active	O	C	C	CCR
DESCRIPTION: REACTOR PLANT COMPONENT COOLING WATER SUPPLY/RETURN PRIMARY ISOL												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*FV66A	26921-1 / M-2	Standard	BF	AO	18.0	3	B	Active	C	O	O	CCR
DESCRIPTION: (A) RHR HEAT EXCHANGE COOLING OUTLET ISOLATION												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*FV66B	26921-1 / F-9	Standard	BF	AO	18.0	3	B	Active	C	O	O	CCR
DESCRIPTION: (B) RHR HEAT EXCHANGE COOLING OUTLET ISOLATION												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV222	26921-2 / H-2	Standard	BF	MO	4.0	3	B	Active	C	OC	NA	CCR
DESCRIPTION: TRAIN B CHILLER WATER SUPPLY/RETURN												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV223	26921-2 / G-2	Standard	BF	MO	4.0	3	B	Active	C	OC	NA	CCR
DESCRIPTION: TRAIN A CHILLER WATER SUPPLY/RETURN												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV224	26921-2 / F-4	Standard	BF	MO	4.0	3	B	Active	C	OC	NA	CCR
DESCRIPTION: TRAIN A CHILLED WATER SUPPLY/RETURN												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3CCP*MOV225	26921-2 / F-4	Standard	BF	MO	4.0	3	B	Active	C	OC	NA	CCR
DESCRIPTION: TRAIN A CHILLED WATER SUPPLY/RETURN												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV226	26921-2 / M-5	Standard	BF	MO	4.0	3	B	Active	C	OC	NA	CCR
DESCRIPTION: TRAIN B CHILLER WATER RETURN												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV227	26921-2 / M-4	Standard	BF	MO	4.0	3	B	Active	C	OC	NA	CCR
DESCRIPTION: TRAIN B CHILLED WATER SUPPLY/RETURN												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV228	26921-2 / L-5	Standard	BF	MO	4.0	3	B	Active	C	OC	NA	CCR

DESCRIPTION: TRAIN B CHILLED WATER SUPPLY/RETURN

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV229	26921-2 / L-4	Standard	BF	MO	4.0	3	B	Active	C	OC	NA	CCR

DESCRIPTION: TRAIN B CHILLED WATER SUPPLY/RETURN ISOLATION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV45A	26921-2 / B-2	Standard	BF	MO	10.0	2	A	Active	O	C	NA	CCR

DESCRIPTION: RPCCW SUPPLY HEADERS CTMT PENETRATION (39 - OUTSIDE)

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LTJ	J	
PIT	III	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3CCP*MOV45B	26921-2 / C-9	Standard	BF	MO	10.0	2	A	Active	O	C	NA	CCR
DESCRIPTION: TRAIN B RPCCW CONTAINMENT RETURN HEADER ISOLATION (40-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LTJ	J	
PIT	III	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV48A	26921-2 / E-2	Standard	BF	MO	10.0	2	A	Active	O	C	NA	CCR
DESCRIPTION: TRAIN 'A' RPCCW CONTAINMENT RETURN INNER ISOLATION (41-INSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LTJ	J	
PIT	III	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV48B	26921-2 / E-10	Standard	BF	MO	10.0	2	A	Active	O	C	NA	CCR
DESCRIPTION: TRAIN (B) RPCCW CONTAINMENT RETURN INLET ISOLATION (42-INSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	

LTJ	J	
PIT	III	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV49A	26921-2 / D-2	Standard	BF	MO	10.0	2	A	Active	O	C	NA	CCR
DESCRIPTION: TRAIN RPCCW CONTAINMENT RETURN OUTER ISOLATION (41-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LTJ	J	
PIT	III	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*MOV49B	26921-2 / C-10	Standard	BF	MO	10.0	2	A	Active	O	C	NA	CCR
DESCRIPTION: TRAIN B RPCCW CONTAINMENT RETURN OUTER ISOLATION (42-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LTJ	J	
PIT	III	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3CCP*RV239A	26921-1 / L-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RHR Pump A Seal Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV239B	26921-1 / C-10	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RHR Pump B Seal Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV258A	26921-2 / K-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: REACTOR COOLANT PUMP UPPER BEARING												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV258B	26921-2 / I-7	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: REACTOR COOLANT PUMP UPPER BEARING												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV258C	26921-2 / G-7	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR

DESCRIPTION: REACTOR COOLANT PUMP UPPER BEARING		
TEST	**FREQUENCY**	**Notes**
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV258D	26921-2 / H-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR

DESCRIPTION: REACTOR COOLANT PUMP UPPER BEARING		
TEST	**FREQUENCY**	**Notes**
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV275A	26921-2 / D-3	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	CCR

DESCRIPTION: CONTAINMENT PENETRATION (A) RELIEF (41-OUTSIDE)		
TEST	**FREQUENCY**	**Notes**
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV275B	26921-2 / D-10	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	CCR

DESCRIPTION: CONTAINMENT PEN (B) RELIEF (42-OUTSIDE)		
TEST	**FREQUENCY**	**Notes**
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3CCP*RV54A	26921-2 / K-4	Standard	RV	SA	1.0	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RCP (A) THERMAL BARRIER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV54B	26921-2 / I-8	Standard	RV	SA	1.0	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RCP (B) BARRIER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV54C	26921-2 / G-8	Standard	RV	SA	1.0	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RCP (C) THERMAL BARRIER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV54D	26921-2 / H-4	Standard	RV	SA	1.0	3	C	Active	C	OC	NA	CCR
DESCRIPTION: REACTOR COOLANT PUMP THERMAL BARRIER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV59A	26921-1 / J-2	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR

DESCRIPTION: Fuel Pool Cooler Relief		
TEST	**FREQUENCY**	**Notes**
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV59B	26921-1 / B-9	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: Fuel Pool Cooler Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV64A	26921-1 / N-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RHR Heat Exchanger A Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*RV64B	26921-1 / F-10	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	CCR
DESCRIPTION: RHR Heat Exchanger B Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*TV32A	26921-1 / I-6	Standard	BF	AO	18.0	3	B	Active	O	O	O	CCR
DESCRIPTION: COMP COOLING HEAT EXCHANGER OUTLET TEMPERATURE CONTROL VALVES (2)												

TEST	FREQUENCY	Notes
FSO	3M	TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*TV32B	26921-1 / I-8	Standard	BF	AO	18.0	3	B	Active	O	O	O	CCR
DESCRIPTION: COMP COOLING HEAT EXCHANGER OUTLET TEMPERATURE CONTROL VALVES (2)												

TEST	FREQUENCY	Notes
FSO	3M	TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*TV32C	26921-1 / I-7	Standard	BF	AO	18.0	3	B	Active	O	O	O	CCR
DESCRIPTION: COMP COOLING HEAT EXCHANGER OUTLET TEMPERATURE CONTROL VALVES (2)												

TEST	FREQUENCY	Notes
FSO	3M	TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V001	26921-1 / F-5	Standard	CK	SA	18.0	3	C	Active	SYS	OC	NA	CCR
DESCRIPTION: RPCCW PUMP "A" DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V002	26921-1 / F-6	Standard	CK	SA	18.0	3	C	Active	SYS	OC	NA	CCR
DESCRIPTION: RPCCW PUMP "C" DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V003	26921-1 / F-7	Standard	CK	SA	18.0	3	C	Active	SYS	OC	NA	CCR
DESCRIPTION: CHECK VALVE RPCCW PP B DIS. CHK.												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V018	26921-2 / E-2	Standard	CK	SA	10.0	2	AC	Active	SYS	C	NA	CCR
DESCRIPTION: CHECK VALVE (39-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-39
CVO	CM	TP-02 : CM-39
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V027	26921-2 / H-5	Standard	CK	SA	2.0	3	C	Active	SYS	C	NA	CCR
DESCRIPTION: D RCP THERMAL BARRIER CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-30
CVO	CM	TP-02 : CM-30

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V038	26921-2 / K-5	Standard	CK	SA	2.0	3	C	Active	SYS	C	NA	CCR
DESCRIPTION: A RCP THERMAL BARRIER CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-30
CVO	CM	TP-02 : CM-30

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V060	26921-2 / E-9	Standard	CK	SA	10.0	2	AC	Active	SYS	C	NA	CCR
DESCRIPTION: CCP 'B' LOOP INSIDE CONTAINMENT ISOLATION (40-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-39
CVO	CM	TP-02 : CM-39
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V063	26921-2 / G-8	Standard	CK	SA	2.0	3	C	Active	SYS	C	NA	CCR
DESCRIPTION: C RCP THERMAL BARRIER CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-30
CVO	CM	TP-02 : CM-30

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V074	26921-2 / I-8	Standard	CK	SA	2.0	3	C	Active	SYS	C	NA	CCR
DESCRIPTION: B RCP THERMAL BARRIER CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-30
CVO	CM	TP-02 : CM-30

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V886	26921-1 / D-2	Standard	GA	MA	2.0	2	A	Passive	LC	C	NA	CCR
DESCRIPTION: DEMINERALIZED H20 SUPPLY INSIDE CTMT,CTMT PENETRATION(70-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V887	26921-1 / C-2	Standard	GA	MA	2.0	2	A	Passive	LC	C	NA	CCR
DESCRIPTION: DEMINERALIZED H20 SUPPLY INSIDE CTMT,CTMT PENETRATION(70-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V965	26921-1 / J-6	Standard	GA	MA	0.75	3	B	Active	O	C	NA	CCR
DESCRIPTION: TR A RPCCW SUPPLY ISOLATION TO RAD MONITOR												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V966	26921-1 / J-9	Standard	GA	MA	0.75	3	B	Active	O	C	NA	CCR
DESCRIPTION: TR B RPCCW SUPPLY ISOLATION TO RAD MONITOR												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V981	26921-1 / J-4	Standard	GL	MA	1.0	3	B	Active	O	C	NA	CCR
DESCRIPTION: SAFETY INJECT PUMP COOLING SURGE TANK FILL VALVE INLET												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CCP*V986	26921-2 / A-7	Standard	GL	MA	1.0	3	B	Active	O	C	NA	CCR
DESCRIPTION: CHG PMP COOLING SURGE TK FILL VLV INLET ISOLATION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*CTV38A	26922-1 / L-5	Standard	BF	AO	10.0	2	A	Active	O	C	C	CWD
DESCRIPTION: CHILLED WATER SUPPLY CTMT PENETRATION (38-OUTSIDE) O/B												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3CDS*CTV38B	26922-1 / J-7	Standard	BF	AO	10.0	2	A	Active	O	C	C	CWD
DESCRIPTION: CHILLED WATER SUPPLY CTMT PENETRATION (72-OUTSIDE) O/B												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*CTV39A	26922-1 / L-1	Standard	BF	AO	10.0	2	A	Active	O	C	C	CWD
DESCRIPTION: CHILLED WATER RETURN CTMT PENETRATION (116-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*CTV39B	26922-1 / J-10	Standard	BF	AO	10.0	2	A	Active	O	C	C	CWD
DESCRIPTION: CHILLED WATER RETURN CTMT PENETRATION (45-OUTSIDE)HEADER ISOL												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*CTV40A	26922-1 / M-1	Standard	BF	AO	10.0	2	A	Active	O	C	C	CWD
DESCRIPTION: CHILLED WATER RETURN CTMT PENETRATION (116-INSIDE) EDUCTIVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*CTV40B	26922-1 / L-10	Standard	BF	AO	10.0	2	A	Active	O	C	C	CWD
DESCRIPTION: CHILLED WATER RETURN CTMT PENETRATION (45-INSIDE) EDUCTION												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*CTV91A	26922-1 / M-5	Standard	BF	AO	10.0	2	A	Active	O	C	C	CWD
DESCRIPTION: CHILLED WATER SUPPLY CTMT PENETRATION (38-INSIDE)												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
LTJ	J	

PIT	24M	
STC	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*CTV91B	26922-1 / L-7	Standard	BF	AO	10.0	2	A	Active	O	C	C	CWD
DESCRIPTION: CHILLED WATER SUPPLY CTMT PENETRATION (72-INSIDE) ENDUCTIVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-32 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*RV105A	26922-1 / L-6	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	CWD
DESCRIPTION: CHILLED WATER SUPPLY RELIEF TO CTMT FLOOR DRAINS (38-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*RV105B	26922-1 / J-7	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	CWD
DESCRIPTION: CHILLED WATER SUPPLY RELIEF TO CTMT FLOOR DRAINS (72-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*RV106A	26922-1 / L-3	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	CWD
DESCRIPTION: CHILLED WATER SUPPLY RELIEF TO CTMT FLOOR DRAINS (116-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CDS*RV106B	26922-1 / J-10	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	CWD
DESCRIPTION: B TRAIN RETURN HEADER RELIEF (45-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*AV8146	26904-1 / B-2	Standard	GL	AO	3.0	2	B	Active	OC	O	O	CVC
DESCRIPTION: CHARGING LOOP 1 ISOLATION												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-26 : TP-03
PIT	24M	
STO	CS	ATJ-26

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*AV8147	26904-1 / D-2	Standard	GL	AO	3.0	2	B	Active	OC	O	O	CVC
DESCRIPTION: CHARGING LOOP 4 ISOLATION												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-26 : TP-03
PIT	24M	
STO	CS	ATJ-26

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*AV8149A	26904-1 / G-2	Standard	GL	AO	2.0	2	B	Active	O	C	C	CVC
DESCRIPTION: (A) ORIFICE ISOLATION VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-27 : TP-03
PIT	24M	
STC	CS	ATJ-27

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*AV8149B	26904-1 / H-2	Standard	GL	AO	2.0	2	B	Active	O	C	C	CVC
DESCRIPTION: "B" LETDOWN ORIFICE ISOLATION												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-27 : TP-03
PIT	24M	
STC	CS	ATJ-27

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*AV8149C	26904-1 / H-2	Standard	GL	AO	2.0	2	B	Active	O	C	C	CVC
DESCRIPTION: (C) LETDOWN ORIFICE ISOLATION												

TEST	FREQUENCY	Notes

FSC	CS	ATJ-27 : TP-03
PIT	24M	
STC	CS	ATJ-27

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*CV8152	26904-1 / J-2	Standard	GL	AO	3.0	2	A	Active	O	C	C	CVC
DESCRIPTION: REACTOR COOLANT LETDOWN CTMT PENETRATION (24 - OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-05 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*CV8160	26904-1 / I-2	Standard	GL	AO	3.0	2	A	Active	O	C	C	CVC
DESCRIPTION: REACTOR COOLANT LETDOWN CTMT PENETRATION (24-INSIDE)												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-05 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*FCV110B	26904-1 / J-6	Standard	GL	AO	2.0	2	B	Active	C	C	C	CVC
DESCRIPTION: MAKEUP TO CHARGING PUMP SUCTION ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*FCV111A	26904-3 / C-2	Standard	GL	AO	2.0	3	B	Active	C	C	C	CVC
DESCRIPTION: PRIMARY WATER SUPPLY TO BLENDER												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*FCV111B	26904-1 / L-7	Standard	GL	AO	2.0	3	B	Active	C	C	C	CVC
DESCRIPTION: MAKEUP TO VOLUME CONTROL TANK ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*HCV182	26904-1 / C-11	Standard	GL	AO	3.0	2	B	Active	O	O	O	CVC
DESCRIPTION: CHG HDR TO SEAL WATER INJECTION FILTERS CONTROL VALVE												

TEST	FREQUENCY	Notes

FSO	CS	ATJ-30 : TP-03
STO	CS	ATJ-30

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*HCV190A	26904-1 / E-7	Standard	GL	SO	1.0	2	B	Active	C	O	NA	CVC
DESCRIPTION: CHARGING HEADER FLOW CONTROL												

TEST	FREQUENCY	Notes
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*HCV190B	26904-1 / E-11	Standard	GL	SO	1.0	2	B	Active	C	O	NA	CVC
DESCRIPTION: CHARGING HEADER FLOW CONTROL												

TEST	FREQUENCY	Notes
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*LCV112B	26904-1 / J-8	Standard	GA	MO	4.0	2	A	Active	O	C	NA	CVC
DESCRIPTION: VOLUME CONTROL TANK OUTLET ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-02
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*LCV112C	26904-1 / J-8	Standard	GA	MO	4.0	2	A	Active	O	C	NA	CVC
DESCRIPTION: VOLUME CONTROL TANK OUTLET ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-02
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*LCV112D	26904-1 / J-9	Standard	GA	MO	8.0	2	B	Active	C	OC	NA	CVC
DESCRIPTION: RWST SUPPLY TO CHARGING PUMP SUCTION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*LCV112E	26904-1 / J-10	Standard	GA	MO	8.0	2	B	Active	C	OC	NA	CVC
DESCRIPTION: RWST SUPPLY TO CHARGING PUMP SUCTION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8100	26904-1 / A-6	Standard	GL	MO	2.0	2	A	Active	O	C	NA	CVC
DESCRIPTION: SEAL WATER RETURN FROM RCP CTMT PENETRATION (23 - OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-04
LTJ	J	
PIT	III	
STC	CS	ATJ-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8104	26904-3 / F-4	Standard	GL	MOL	2.0	2	B	Active	C	OC	NA	CVC
DESCRIPTION: BORIC ACID FILTER TO CHARGING PUMP												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8105	26904-1 / G-5	Standard	GA	MO	3.0	2	A	Active	O	C	NA	CVC
DESCRIPTION: CHARGING FLOW CONTROL VALVE ISOLATION (26-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-05
LTJ	J	

PIT	III	
STC	CS	ATJ-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8106	26904-1 / G-5	Standard	GA	MO	3.0	2	B	Active	O	C	NA	CVC
DESCRIPTION: CHARGING FLOW CONTROLLER ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-05
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8109A	26903-1 / H-7	Standard	GL	MOL	2.0	2	A	Active	O	OC	NA	CVC
DESCRIPTION: RCP 'A' SEAL SUPPLY ISOLATION CTMT PENETRATION (16-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8109B	26903-1 / E-7	Standard	GL	MOL	2.0	2	A	Active	O	OC	NA	CVC
DESCRIPTION: RCP 'B' SEAL SUPPLY ISOLATION CTMT PENETRATION (17-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	

FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8109C	26903-1 / K-7	Standard	GL	MOL	2.0	2	A	Active	O	OC	NA	CVC
DESCRIPTION: RCP 'C' SEAL SUPPLY ISOLATION CTMT PENETRATION (18-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8109D	26903-1 / A-7	Standard	GL	MOL	2.0	2	A	Active	O	OC	NA	CVC
DESCRIPTION: RCP 'D' SEAL SUPPLY ISOLATION CTMT PENETRATION (19-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8110	26904-1 / E-8	Standard	GL	MO	2.0	2	B	Active	O	OC	NA	CVC
DESCRIPTION: CHARGING RECIRCULATING ISOLATION TO SEALWATER												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8111A	26904-1 / G-8	Standard	GL	MO	2.0	2	B	Active	O	OC	NA	CVC
DESCRIPTION: CHARGING PUMP 3A RECIRCULATION ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8111B	26904-1 / G-10	Standard	GL	MO	2.0	2	B	Active	O	OC	NA	CVC
DESCRIPTION: CHARGING PUMP 3B RECIRCULATION ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8111C	26904-1 / G-9	Standard	GL	MO	2.0	2	B	Active	O	OC	NA	CVC
DESCRIPTION: CHARGING PUMP 3C RECIRCULATION ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8112	26904-1 / A-7	Standard	GL	MO	2.0	2	A	Active	O	C	NA	CVC
DESCRIPTION: SEALWATER RETURN FROM RCP CTMT PENET.(23-INSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-04
LTJ	J	
PIT	III	
STC	CS	ATJ-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8116	26904-1 / G-7	Standard	GA	MOL	1.0	2	B	Active	C	O	NA	CVC
DESCRIPTION: BYPASS CONTROL VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8438A	26904-1 / E-8	Standard	GA	MO	4.0	2	B	Active	O	OC	NA	CVC

DESCRIPTION: CHARGING PUMP A/C DISCHARGE ISOLATION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8438B	26904-1 / E-11	Standard	GA	MO	4.0	2	B	Active	O	OC	NA	CVC

DESCRIPTION: CHARGING PUMP B/C DISCHARGE ISOLATION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8438C	26904-1 / D-9	Standard	GA	MO	4.0	2	B	Active	O	OC	NA	CVC

DESCRIPTION: CHARGING HEADER TRANSFER CONNECTION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8468A	26904-1 / J-10	Standard	GA	MO	8.0	2	B	Active	O	OC	NA	CVC

DESCRIPTION: LOW PRESSURE SAFETY INJECTION CHARGING PUMP SUCTION ISOLATION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8468B	26904-1 / J-10	Standard	GA	MO	8.0	2	B	Active	O	OC	NA	CVC
DESCRIPTION: LOW PRESSURE SAFETY INJECTION CHARGING PUMP SUCTION ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8507A	26904-3 / M-7	Standard	GA	MO	3.0	2	B	Active	C	OC	NA	CVC
DESCRIPTION: (A) TANK GRAVITY BORATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-03
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8507B	26904-3 / K-7	Standard	GA	MO	3.0	2	B	Active	C	OC	NA	CVC
DESCRIPTION: (B) TANK GRAVITY BORATION												

TEST	FREQUENCY	Notes

DIAG	III	
FCE	CS	ATJ-03
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8511A	26904-4 / J-7	Standard	GA	MO	2.0	2	A	Active	C	OC	NA	CVC
DESCRIPTION: CHARGING PUMP RELIEF TRAIN (A) ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-37
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8511B	26904-4 / K-9	Standard	GA	MO	2.0	2	A	Active	C	OC	NA	CVC
DESCRIPTION: CHARGING PUMP RELIEF TRAIN (B) ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-37
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8512A	26904-4 / K-7	Standard	GA	MO	2.0	2	A	Active	O	OC	NA	CVC
DESCRIPTION: CHARGING PUMP RELIEF ISOLATION TRAIN B												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*MV8512B	26904-4 / K-9	Standard	GA	MO	2.0	2	A	Active	O	OC	NA	CVC
DESCRIPTION: CHARGING PUMP RELIEF ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*RV8113	26904-1 / B-7	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	CVC
DESCRIPTION: SEAL RETURN LINE IN CONTAINMENT RELIEF												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*RV8117	26904-1 / I-2	Standard	RV	SA	2.5	2	AC	Active	C	OC	NA	CVC
DESCRIPTION: LETDOWN LINE INSIDE CONTAINMENT RELIEF (24-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*RV8121	26904-1 / B-8	Standard	RV	SA	3.0	2	C	Active	C	OC	NA	CVC
DESCRIPTION: SEAL RETURN LINE INLET CONTAINMENT RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*RV8123	26904-1 / B-4	Standard	RV	SA	3.0	2	C	Active	C	OC	NA	CVC
DESCRIPTION: SEAL WATER HEAT EXCHANGER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*RV8124	26904-1 / J-9	Standard	RV	SA	1.5	2	C	Active	C	OC	NA	CVC
DESCRIPTION: LPSI TO CHARGING PUMP SUCTION HEADER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*RV8351	26904-1 / D-3	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	CVC
DESCRIPTION: LOOP FILL LINE OVER PRESSURE RELIEF												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V042	26904-1 / J-10	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	CVC
DESCRIPTION: VOLUME CONTROL TANK OUTLET TO CHARGING PUMP SUCTION												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-01
CVO	CM	TP-02 : CM-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V046	26904-1 / F-8	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	CVC
DESCRIPTION: CHARGING PUMP A DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-40
CVO	CM	TP-02 : CM-40

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V047	26904-1 / F-10	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	CVC
DESCRIPTION: CHARGING PUMP C DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-40
CVO	CM	TP-02 : CM-40

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V048	26904-1 / F-11	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	CVC
DESCRIPTION: CHARGING PUMP B DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-40
CVO	CM	TP-02 : CM-40

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V058	26904-1 / F-3	Standard	CK	SA	3.0	2	AC	Active	SYS	OC	NA	CVC
DESCRIPTION: REACTOR COOLANT CHARGING CTMT PENETRATION (26-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-31
CVO	CM	TP-02 : CM-31
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V261	26904-1 / K-9	Standard	CK	SA	8.0	2	AC	Active	SYS	OC	NA	CVC
DESCRIPTION: RWST SPLY TO CHG. PP SUCTION CHK.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-41
CVO	CM	TP-02 : CM-41
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V262	26904-1 / H-11	Standard	CK	SA	2.0	2	C	Active	SYS	OC	NA	CVC

DESCRIPTION: CHARGING PP B RECIRC. CHK.

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-42
CVO	CM	TP-02 : CM-42

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V263	26904-1 / H-9	Standard	CK	SA	2.0	2	C	Active	SYS	OC	NA	CVC

DESCRIPTION: CHARGING PP C RECIRC. CHK.

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-42
CVO	CM	TP-02 : CM-42

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V264	26904-1 / H-8	Standard	CK	SA	2.0	2	C	Active	SYS	OC	NA	CVC

DESCRIPTION: CHARGING PP A RECIRC. CHK.

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-42
CVO	CM	TP-02 : CM-42

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V270	26904-1 / F-11	Standard	GL	MA	2.0	2	B	Active	C	O	NA	CVC

DESCRIPTION: CHARGER PUMP 3B MAIN CHARGER BYPASS

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V271	26904-1 / F-10	Standard	GL	MA	2.0	2	B	Active	C	O	NA	CVC
DESCRIPTION: CHARGING PUMP 3C MAIN CHARGE BYPASS (1-1/16)												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V272	26904-1 / F-8	Standard	GL	MA	2.0	2	B	Active	C	O	NA	CVC
DESCRIPTION: CHARGING PUMP 3A MAIN CHARGER BYPASS												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V273	26904-1 / D-11	Standard	GA	MA	3.0	2	B	Active	O	C	NA	CVC
DESCRIPTION: CHARGING TO REACTOR COOLANT PUMP SEALS MAIN ISOLATION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V291	26904-3 / L-5	Standard	DIA	MA	2.0	3	B	Active	C	O	NA	CVC
DESCRIPTION: BATCH TANK TO TRANSFER PUMP 2A ISOLATION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3CHS*V294	26904-3 / J-5	Standard	CK	SA	2.0	3	C	Active	SYS	OC	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-43
CVO	CM	TP-02 : CM-43

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V296	26904-3 / J-6	Standard	CK	SA	2.0	3	C	Active	SYS	OC	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-43
CVO	CM	TP-02 : CM-43

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V302	26904-3 / D-5	Standard	CK	SA	2.0	3	C	Active	SYS	C	NA	CVC
DESCRIPTION: BORIC ACID TO BLENDER CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-20
CVO	CM	TP-02 : CM-20

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V310	26904-3 / C-4	Standard	CK	SA	3.0	3	C	Active	SYS	C	NA	CVC
DESCRIPTION: PREVENT BACKFLOW FROM BORON INJECTION SYS. INTO PRIMARY GRADE WTR												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-32

CVO	CM	TP-02 : CM-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V320	26904-3 / F-4	Standard	CK	SA	2.0	2	C	Active	SYS	O	NA	CVC
DESCRIPTION: BORIC ACID FILTER TO CHS PUMP CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-20
CVO	CM	TP-02 : CM-20

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V333	26904-3 / L-7	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	CVC
DESCRIPTION: CHECK VALVE B.A.T. B GRAVITY BORATION												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-32
CVO	CM	TP-02 : CM-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V371	26904-1 / D-4	Standard	GL	MA	2.0	2	A	Passive	LC	C	NA	CVC
DESCRIPTION: R/X COOLANT LOOP FILL CTMT PENETRATION (62-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V372	26904-1 / D-3	Standard	CK	SA	2.0	2	AC	Active	SYS	C	NA	CVC
DESCRIPTION: REACTOR COOLANT LOOP FILL CTMT PENETRATION (62-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-44
CVO	CM	TP-02 : CM-44
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V394	26903 / H-6	Standard	CK	SA	2.0	2	AC	Active	SYS	OC	NA	CVC
DESCRIPTION: CTMT PENETRATION (16-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17B
CVO	CM	TP-02 : CM-17B
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V396	26903-1 / I-5	Standard	CK	SA	2.0	1	C	Active	SYS	O	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17A
CVO	CM	TP-02 : CM-17A

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V397	26903-1 / I-5	Standard	CK	SA	2.0	1	C	Active	SYS	O	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17A

CVO	CM	TP-02 : CM-17A

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V434	26903 / E-6	Standard	CK	SA	2.0	2	AC	Active	SYS	OC	NA	CVC
DESCRIPTION: CTMT PENETRATION (17-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17B
CVO	CM	TP-02 : CM-17B
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V436	26903-1 / E-5	Standard	CK	SA	2.0	1	C	Active	SYS	O	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17A
CVO	CM	TP-02 : CM-17A

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V437	26903-1 / E-5	Standard	CK	SA	2.0	1	C	Active	SYS	O	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17A
CVO	CM	TP-02 : CM-17A

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3CHS*V467	26903 / K-6	Standard	CK	SA	2.0	2	AC	Active	SYS	OC	NA	CVC
DESCRIPTION: CTMT PENETRATION (18-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17B
CVO	CM	TP-02 : CM-17B
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V469	26903-1 / L-5	Standard	CK	SA	2.0	1	C	Active	SYS	O	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17A
CVO	CM	TP-02 : CM-17A

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V470	26903-1 / L-5	Standard	CK	SA	2.0	1	C	Active	SYS	O	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17A
CVO	CM	TP-02 : CM-17A

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V501	26903 / A-6	Standard	CK	SA	2.0	2	AC	Active	SYS	OC	NA	CVC
DESCRIPTION: CTMT PENETRATION (19-INSIDE)												

TEST	FREQUENCY	Notes

CVC	CM	TP-02 : CM-17B
CVO	CM	TP-02 : CM-17B
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V503	26903-1 / A-5	Standard	CK	SA	2.0	1	C	Active	SYS	O	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17A
CVO	CM	TP-02 : CM-17A

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V504	26903-1 / B-5	Standard	CK	SA	2.0	1	C	Active	SYS	O	NA	CVC
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-17A
CVO	CM	TP-02 : CM-17A

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CHS*V711	26904-3 / L-7	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	CVC
DESCRIPTION: B.A.T. A GRAVITY BORATION CHK.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-32
CVO	CM	TP-02 : CM-32

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CMS*CTV20	26954-1 / E-4	Standard	GL	AO	1.0	2	A	Active	O	C	C	CNT
DESCRIPTION: CTMT ATMOSPHERE MONITOR SUCTION CTMT PENETRATION (32-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CMS*CTV21	26954-1 / F-4	Standard	GL	AO	1.0	2	A	Active	O	C	C	CNT
DESCRIPTION: CTMT ATMOSPHERE MONITOR SUCTION CTMT PENETRATION (32-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CMS*CTV23	26954-1 / F-2	Standard	GL	AO	1.0	2	A	Active	O	C	C	CNT
DESCRIPTION: CTMT ATMOSPHERE MONITOR DISCHARGE CTMT PENETRATION (63-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	

STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CMS*MOV24	26954-1 / B-2	Standard	GL	MO	1.0	2	A	Active	O	C	NA	CNT
DESCRIPTION: CTMT ATMOSPHERE MONITOR DISCHARGE CTMT PENETRATION (63-INSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LTJ	J	
PIT	III	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CVS*AOV23	26953-1 / G-2	Standard	BF	AO	8.0	2	A	Passive	C	C	C	CVM
DESCRIPTION: CTMT VACUUM EJECTOR SUCTION ISOL VLV CTMT PENETRATION (37-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CVS*CTV20A	26953-1 / F-3	Standard	GL	AO	2.0	2	A	Active	C	C	C	CVM
DESCRIPTION: CTMT VACUUM PUMP SUCTION CTMT ISOLATION PENETRATION (35-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	

PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CVS*CTV20B	26953-1 / F-5	Standard	GL	AO	2.0	2	A	Active	C	C	C	CVM
DESCRIPTION: CTMT VACUUM PUMP SUCTION CTMT ISOLATION PENETRATION (36-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CVS*CTV21A	26953-1 / E-3	Standard	GL	AO	2.0	2	A	Active	C	C	C	CVM
DESCRIPTION: CTMT VACUUM PUMP SUCTION CTMT ISOLATION PENETRATION (35-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CVS*CTV21B	26953-1 / E-5	Standard	GL	AO	2.0	2	A	Active	C	C	C	CVM
DESCRIPTION: CTMT VACUUM PUMP SUCTION CTMT ISOLATION PENETRATION (36-OUTSIDE)												

TEST	FREQUENCY	Notes

FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CVS*MOV25	26953-1 / G-4	Standard	GA	MO	2.0	2	A	Passive	C	C	NA	CVM
DESCRIPTION: CTMT VACUUM PUMP DISCHARGE CTMT PENETRATION (121-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CVS*V013	26953-1 / F-4	Standard	DIA	MA	2.0	2	A	Passive	LC	C	NA	CVM
DESCRIPTION: CTMT VACUUM PUMP DISCHARGE CTMT PENETRATION (121-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3CVS*V020	26953-1 / F-2	Standard	BF	MA	8.0	2	A	Passive	LC	C	NA	CVM
DESCRIPTION: CTMT VACUUM AIR EJECTOR ISOLATION (CTMT PENETRATION 37-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3DAS*CTV24	26906-3 / I-10	Standard	GL	AO	2.0	2	A	Active	C	C	C	VAS
DESCRIPTION: RX PLANT AERATED DRAINS CTMT PENETRATION (28-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DAS*CTV25	26906-3 / J-10	Standard	GL	AO	2.0	2	A	Active	O	C	C	VAS
DESCRIPTION: RX PLANT AERATED DRAINS CTMT PENETRATION (28-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DAS*RV87	26906-3 / J-10	Standard	RV	SA	2.0	2	AC	Active	C	OC	NA	VAS
DESCRIPTION: REACTOR PLANT AERATED RELIEF CONTAINMENT PENETRATION (28-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3DGS*CTV24	26907-1 / G-10	Standard	GL	AO	3.0	2	A	Active	C	C	C	DGS
DESCRIPTION: PRT & CTMT DRAINS TRANSFER PP DSCHRG CTMT PENETRATION (27-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DGS*CTV25	26907-1 / E-10	Standard	GL	AO	3.0	2	A	Active	O	C	C	DGS
DESCRIPTION: PRT & CTMT DRAINS TRNSFR PP DSCHRGE CTMT PENETRATION (27-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DGS*RV51	26907 / F-10	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	DGS
DESCRIPTION: CONTAINMENT PENETRATION (27-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3DTM*AOV29A	26945-1 / A-2	Standard	GL	AO	3.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CTMT ISOL 'A' S/G STEAM HDR DRAIN #1 S/G												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV29B	26945-1 / D-2	Standard	GL	AO	3.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CTMT ISOL 'A' STEAM GENERATOR STEAM HEADER DRAIN '2' S/GENERATOR												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV29C	26945-1 / F-2	Standard	GL	AO	3.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CTMT ISOL 'A' STEAM GENERATOR STEAM HEADER DRAIN '3' S/GENERATOR												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV29D	26945-1 / H-2	Standard	GL	AO	3.0	2	B	Active	O	C	C	DTM

DESCRIPTION: CTMT ISOL 'A' STEAM GENERATOR STEAM HEADER DRAIN '4' S/GENERATOR		
TEST	**FREQUENCY**	**Notes**
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV61A	26945-1 / A-3	Standard	GL	AO	3.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CTMT ISOL 'B' S/G STEAM HDR DRN #1 S/G												

TEST	**FREQUENCY**	**Notes**
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV61B	26945-1 / D-3	Standard	GL	AO	3.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CTMT ISOL 'B' STEAM GENERATOR STEAM HEADER DRAIN '2' S/GENERATOR												

TEST	**FREQUENCY**	**Notes**
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV61C	26945-1 / F-3	Standard	GL	AO	3.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CTMT ISOL 'B' STEAM GENERATOR STEAM HEADER DRAIN '3' S/GENERATOR												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV61D	26945-1 / H-3	Standard	GL	AO	3.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CTMT ISOL 'B' STEAM GENERATOR STEAM HEADER DRAIN '4' S/GENERATOR												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV63A	26945-1 / M-4	Standard	GL	AO	1.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CTMT ISOLATION A S/G STEAM HEADER DRAIN 1 TT												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV63B	26945-1 / J-4	Standard	GL	AO	1.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CONTAINMENT ISOLATION A STEAM GENERATOR STEAM HEADER DRAIN 2 TT												

TEST	FREQUENCY	Notes

FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV63D	26945-1 / K-4	Standard	GL	AO	1.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CONTAINMENT ISOLATION A STEAM GENERATOR STEAM HEADER DRAIN 4 TT												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV64A	26945-1 / M-5	Standard	GL	AO	1.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CONTAINMENT ISOLATION B STEAM GENERATOR STEAM HEADER DRAIN 1 TT												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV64B	26945-1 / J-5	Standard	GL	AO	1.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CTMT ISOLATION B S/G STEAM HEADER DRAIN 2 TT												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3DTM*AOV64D	26945-1 / K-5	Standard	GL	AO	1.0	2	B	Active	O	C	C	DTM
DESCRIPTION: CONTAINMENT ISOLATION B STEAM GENERATOR STEAM HEADER DRAIN 4 TT												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*EFV35A1	26916-2 / H-6	Standard	CK	SA	0.25	3	AC	Active	O	C	NA	DSA
DESCRIPTION: COMP INST EXCESS AIR												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-29
CVO	CM	TP-02 : CM-29
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*EFV35A2	26916-2 / H-9	Standard	CK	SA	0.25	3	AC	Active	O	C	NA	DSA
DESCRIPTION: COMP INST EXCESS AIR												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-29
CVO	CM	TP-02 : CM-29

LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*EFV35B1	26916-4 / H-6	Standard	CK	SA	0.25	3	AC	Active	O	C	NA	DSA
DESCRIPTION: COMP INST EXCESS AIR												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-29
CVO	CM	TP-02 : CM-29
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*EFV35B2	26916-4 / H-9	Standard	CK	SA	0.25	3	AC	Active	O	C	NA	DSA
DESCRIPTION: COMP INST EXCESS AIR												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-29
CVO	CM	TP-02 : CM-29
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*RV24A1	26916-2 / J-6	Standard	RV	SA	0.5	3	C	Active	C	OC	NA	DSA
DESCRIPTION: "A" DIESEL START AIR RECEIVER TANK 1A RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3EGA*RV24A2	26916-2 / J-8	Standard	RV	SA	0.5	3	C	Active	C	OC	NA	DSA
DESCRIPTION: "A" DIESEL START AIR RECEIVER TANK 2A RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*RV24B1	26916-4 / J-6	Standard	RV	SA	0.5	3	C	Active	C	OC	NA	DSA
DESCRIPTION: "B" DIESEL START AIR RECEIVER TANK 1B RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*RV24B2	26916-4 / J-8	Standard	RV	SA	0.5	3	C	Active	C	OC	NA	DSA
DESCRIPTION: "B" DIESEL START AIR RECEIVER TANK 2B RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*SOV25A	26916-2 / J-3	Standard	GL	SO	0.375	3	B	Active	C	C	C	DSA
DESCRIPTION: "A" DIESEL START AIR SHUTDOWN SOLENOID												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
STC	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3EGA*SOV25B	26916-4 / J-3	Standard	GL	SO	0.375	3	B	Active	C	C	C	DSA
DESCRIPTION: "B" DIESEL START AIR SHUTDOWN SOLENOID												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
STC	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*V004	26916-2 / H-3	Standard	CK	SA	0.75	3	AC	Active	SYS	C	NA	DSA
DESCRIPTION: AIR COMPRESSOR 1A DISCHARGE CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-66
CVO	CM	TP-02 : CM-66
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*V011	26916-2 / H-8	Standard	CK	SA	0.75	3	AC	Active	SYS	C	NA	DSA
DESCRIPTION: COMPRESSOR 2A DISCHARGE CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-66
CVO	CM	TP-02 : CM-66
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*V030	26916-4 / H-3	Standard	CK	SA	0.75	3	AC	Active	SYS	C	NA	DSA
DESCRIPTION: AIR COMPRESSOR 1B DISCHARGE CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-66
CVO	CM	TP-02 : CM-66
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*V037	26916-4 / H-8	Standard	CK	SA	0.75	3	AC	Active	SYS	C	NA	DSA
DESCRIPTION: AIR COMPRESSOR 2B DISCHARGE CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-66
CVO	CM	TP-02 : CM-66
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGF*V001	26917-1 / C-2	Standard	CK	SA	1.5	3	C	Active	SYS	OC	NA	DFS
DESCRIPTION: "A" DIESEL FUEL OIL TRANSFER PUMP DISCHARGE STR1A OUTLET CHECK												

TEST	FREQUENCY	Notes
CVC	3M	TP-05
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGF*V003	26917-1 / D-2	Standard	CK	SA	1.5	3	C	Active	SYS	OC	NA	DFS
DESCRIPTION: "A" DIESEL FUEL OIL TRANSFER PUMP DISCHARGE STR1C OUTLET CHECK												

TEST	FREQUENCY	Notes
CVC	3M	TP-05

CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGF*V007	26917-1 / C-6	Standard	CK	SA	1.5	3	C	Active	SYS	OC	NA	DFS
DESCRIPTION: "B" DIESEL FUEL OIL TRANSFER PUMP DISCHARGE STR1B OUTLET CHECK												

TEST	FREQUENCY	Notes
CVC	3M	TP-05
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGF*V009	26917-1 / D-6	Standard	CK	SA	1.5	3	C	Active	SYS	OC	NA	DFS
DESCRIPTION: "B" DIESEL FUEL OIL TRANSFER PUMP DISCHARGE STR1D OUTLET CHECK												

TEST	FREQUENCY	Notes
CVC	3M	TP-05
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGF*V960	26917-1 / I-5	Standard	CK	SA	1.5	3	C	Active	SYS	OC	NA	DFS
DESCRIPTION: 'A' DIESEL DC MOTOR DRIVEN FUEL OIL PUMP P2A DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	3M	TP-05
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGF*V966	26917-1 / I-9	Standard	CK	SA	1.5	3	C	Active	SYS	OC	NA	DFS

DESCRIPTION: 'B' DIESEL DC MOTOR DRIVEN FUEL OIL PUMP P2B DISCHARGE CHECK

TEST	FREQUENCY	Notes
CVC	3M	TP-05
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGS*V993A	26916-1 / E-7	Standard	CK	SA	6.0	3	C	Active	SYS	O	NA	DGN

DESCRIPTION: CHECK VALVE

TEST	FREQUENCY	Notes
CVC	3M	TP-05
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGS*V993B	26916-3 / E-7	Standard	CK	SA	6.0	3	C	Active	SYS	O	NA	DGN

DESCRIPTION: CHECK VALVE

TEST	FREQUENCY	Notes
CVC	3M	TP-05
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FPW*CTV48	26946-2 / B-4	Standard	BF	AO	6.0	2	A	Active	O	C	C	FPW

DESCRIPTION: FIRE PROTECTION CTMT OUTER ISOLATION PENETRATION (56-OUTSIDE)

TEST	FREQUENCY	Notes
FSC	CS	ATJ-38 : TP-03
LTJ	J	

PIT	24M	
STC	CS	ATJ-38

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FPW*CTV49	26946-2 / C-4	Standard	BF	AO	6.0	2	A	Active	O	C	C	FPW
DESCRIPTION: FIRE PROTECTION CTMT INNER ISOLATION PENETRATION (56-INSIDE)												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-38 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-38

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FPW*RV87	26946-2 / B-2	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	FPW
DESCRIPTION: FIRE PROTECTION CTMT PENETRATION RELIEF VALVE (56-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FPW*V661	26946-2 / C-4	Standard	GL	MA	6.0	2	A	Passive	LC	C	NA	FPW
DESCRIPTION: FIRE PROTECTION CTMT INNER ISOLATION VALVE 3FPW*CTV49 BYPASS (56-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FPW*V666	26946-2 / B-4	Standard	GL	MA	6.0	2	A	Passive	LC	C	NA	FPW
DESCRIPTION: FIRE PROTECTION CTMT OUTER ISOLATION VALVE 3FPW*CTV48 BYPASS (56-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*AOV23A	26930-2 / E-6	Standard	BF	AO	8.0	3	B	Active	C	C	C	AFW
DESCRIPTION: STEAM GENERATOR AUXILIARY FEEDWATER ALTERNATE VALVE SUCTION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*AOV23B	26930-2 / B-9	Standard	BF	AO	8.0	3	B	Active	C	C	C	AFW
DESCRIPTION: AUXILIARY FEED SG AUXILIARY FEEDWATER ALTERNATE SUCTION VALVE												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*AOV25	26930-2 / D-3	Standard	GL	AO	3.0	3	B	Active	O	C	C	AFW
DESCRIPTION: DEMINERALIZER WATER STORAGE TANK HEATING CIRCULATING LINE ISOL												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*AOV26	26930-2 / D-4	Standard	GL	AO	3.0	3	B	Active	O	C	C	AFW
DESCRIPTION: DEMINERALIZER WATER STORAGE TANK HEATING CIRCULATING LINE ISOL												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*AOV61A	26930-2 / E-4	Standard	BF	AO	8.0	3	B	Active	O	O	O	AFW
DESCRIPTION: STEAM GENERATOR AUXILIARY FEEDWATER PUMP A SUCTION ISOLATION VLV												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*AOV61B	26930-2 / B-7	Standard	BF	AO	8.0	3	B	Active	O	O	O	AFW
DESCRIPTION: DEMIN WATER STORAGE TANK TO P1A/P1B ISOLATION VALVES												

TEST	FREQUENCY	Notes

FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*AOV62A	26930-2 / H-6	Standard	GL	AO	6.0	3	B	Active	C	C	C	AFW
DESCRIPTION: 3FWA*P1A/3FWA*P1B CROSS CONNECT VALVE												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*AOV62B	26930-2 / G-7	Standard	GL	AO	6.0	3	B	Active	C	C	C	AFW
DESCRIPTION: 3FWA*P1A/3FWA*P1B CROSS CONNECT VALVE												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HCV37	26930-2 / A-10	Standard	BF	MA	10.0	3	B	Active	C	C	NA	AFW
DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER ALTERNATE SUCTION (3FWA*V061)												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV31A	26930-2 / J-5	Standard	GL	SO	3.0	3	B	Active	O	OC	O	AFW
DESCRIPTION: AUXILIARY FEEDWATER CONTROL VALVE												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV31B	26930-2 / J-7	Standard	GL	SO	3.0	3	B	Active	O	OC	O	AFW
DESCRIPTION: AUXILIARY FEEDWATER CONTROL VALVE												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV31C	26930-2 / I-9	Standard	GL	SO	3.0	3	B	Active	O	OC	O	AFW
DESCRIPTION: AUXILIARY FEEDWATER CONTROL VALVE												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3FWA*HV31D	26930-2 / J-2	Standard	GL	SO	3.0	3	B	Active	O	OC	O	AFW
DESCRIPTION: AUXILIARY FEEDWATER CONTROL VALVE												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV32A	26930-2 / J-6	Standard	GL	SO	3.0	3	B	Active	O	OC	O	AFW
DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER CONTROL VALVE												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV32B	26930-2 / J-8	Standard	GL	SO	3.0	3	B	Active	O	OC	O	AFW
DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER CONTROL VALVE												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV32C	26930-2 / I-10	Standard	GL	SO	3.0	3	B	Active	O	OC	O	AFW

DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER CONTROL VALVE

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV32D	26930-2 / J-3	Standard	GL	SO	3.0	3	B	Active	O	OC	O	AFW

DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER CONTROL VALVE

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV36A	26930-2 / L-5	Standard	GL	SO	3.0	2	B	Active	O	OC	O	AFW

DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER CONTROL VALVE

TEST	FREQUENCY	Notes
FSO	CS	ATJ-10 : TP-03
PIT	24M	
STC	CS	ATJ-10
STO	CS	ATJ-10

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV36B	26930-2 / L-8	Standard	GL	SO	3.0	2	B	Active	O	OC	O	AFW

DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER CONTROL VALVE

TEST	FREQUENCY	Notes
FSO	CS	ATJ-10 : TP-03
PIT	24M	
STC	CS	ATJ-10
STO	CS	ATJ-10

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV36C	26930-2 / J-10	Standard	GL	SO	3.0	2	B	Active	O	OC	O	AFW

DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER CONTROL VALVE

TEST	FREQUENCY	Notes
FSO	CS	ATJ-10 : TP-03
PIT	24M	
STC	CS	ATJ-10
STO	CS	ATJ-10

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*HV36D	26930-2 / K-3	Standard	GL	SO	3.0	2	B	Active	O	OC	O	AFW

DESCRIPTION: TURBINE DRIVEN AUXILIARY FEEDWATER CONTROL VALVE

TEST	FREQUENCY	Notes
FSO	CS	ATJ-10 : TP-03
PIT	24M	
STC	CS	ATJ-10
STO	CS	ATJ-10

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*MOV35A	26930-2 / L-5	Standard	GA	MO	4.0	2	B	Active	O	OC	NA	AFW
DESCRIPTION: STEAM GENERATOR AUXILIARY FEEDWATER SYSTEM												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*MOV35B	26930-2 / L-8	Standard	GA	MO	4.0	2	B	Active	O	OC	NA	AFW
DESCRIPTION: STEAM GENERATOR AUXILIARY FEEDWATER ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*MOV35C	26930-2 / J-9	Standard	GA	MO	4.0	2	B	Active	O	OC	NA	AFW
DESCRIPTION: STEAM GENERATOR FEEDWATER ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3FWA*MOV35D	26930-2 / K-2	Standard	GA	MO	4.0	2	B	Active	O	OC	NA	AFW
DESCRIPTION: STEAM GENERATOR AUXILIARY FEEDWATER ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*RV45	26930-2 / E-10	Standard	RV	SA	2.0	3	C	Active	C	OC	NA	AFW
DESCRIPTION: TURBINE AUXILIARY FEEDWATER PUMP DISCHARGE RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*RV64A	26930-2 / F-5	Standard	RV	SA	1.5	3	C	Active	C	OC	NA	AFW
DESCRIPTION: AUXILIARY FEEDWATER 3FWA*P1A SUCTION LINE RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*RV64B	26930-2 / C-9	Standard	RV	SA	1.5	3	C	Active	C	OC	NA	AFW
DESCRIPTION: AUXILIARY FEEDWATER 3FWA*P1B SUCTION LINE RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*RV65	26930-2 / B-10	Standard	RV	SA	1.5	3	C	Active	C	OC	NA	AFW
DESCRIPTION: AUXILIARY FEEDWATER 3FWA*P2 SUCTION LINE RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V002	26930-2 / E-5	Standard	GA	MA	8.0	3	B	Active	LO	C	NA	AFW
DESCRIPTION: "A" MOTOR DRIVEN AUX FEED PUMP DWST SUCTION HEADER ISOLATION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V003	26930-2 / H-5	Standard	CK	SA	6.0	3	C	Active	SYS	OC	NA	AFW
DESCRIPTION: "A" MDAFP DISCH CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-34
CVO	CM	TP-02 : CM-34

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V007	26930-2 / K-5	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	AFW
DESCRIPTION: MDAFP SPLY TO "A" S/C CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-35
CVO	CM	TP-02 : CM-35

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V009	26930-2 / M-5	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	AFW
DESCRIPTION: STEAM GENERATOR "A" AUXILIARY FEEDWATER CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-38
CVO	CM	TP-02 : CM-38

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V012	26930-2 / K-2	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	AFW
DESCRIPTION: MDAFP TO "D" S/G AUX FEED SPLY HDR CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-35
CVO	CM	TP-02 : CM-35

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V014	26930-2 / M-2	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	AFW
DESCRIPTION: STEAM GENERATOR "D" AUXILIARY FEEDWATER CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-38
CVO	CM	TP-02 : CM-38

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V016	26930-2 / B-8	Standard	GA	MA	8.0	3	B	Active	LO	C	NA	AFW
DESCRIPTION: STEAM GENERATOR AUXILIARY FEEDWATER PUMP B DWST SUCTION HDR ISOL												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V017	26930-2 / G-8	Standard	CK	SA	6.0	3	C	Active	SYS	OC	NA	AFW
DESCRIPTION: "B" MDAFP DISCH CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-34
CVO	CM	TP-02 : CM-34

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V021	26930-2 / J-7	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	AFW
DESCRIPTION: MDAFP SPLY TO "B" S/G CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-35
CVO	CM	TP-02 : CM-35

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V023	26930-2 / M-7	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	AFW
DESCRIPTION: STEAM GENERATOR "B" AUXILIARY FEEDWATER CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-38
CVO	CM	TP-02 : CM-38

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3FWA*V026	26930-2 / I-9	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	AFW
DESCRIPTION: MDAFP SPLY TO "C" S/G CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-35
CVO	CM	TP-02 : CM-35

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V028	26930-2 / K-9	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	AFW
DESCRIPTION: STEAM GENEATOR "C" FEEDWATER CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-38
CVO	CM	TP-02 : CM-38

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V030	26930-2 / B-10	Standard	GA	MA	10.0	3	B	Active	LO	OC	NA	AFW
DESCRIPTION: TDAFP SUCT ISOL ON DWST												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V031	26930-2 / F-11	Standard	CK	SA	8.0	3	C	Active	SYS	OC	NA	AFW
DESCRIPTION: TURBINE DRIVEN FEED PUMP DISCHARGE CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-02
CVO	CM	TP-02 : CM-02

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V035	26930-2 / I-11	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	AFW
DESCRIPTION: TDAFP SPLY TO "C" S/G CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-36
CVO	CM	TP-02 : CM-36

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V039	26930-2 / J-8	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	AFW
DESCRIPTION: T.D.A.F.W.PMP CHECK VLV. TO SG2												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-36
CVO	CM	TP-02 : CM-36

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V043	26930-2 / K-6	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	AFW
DESCRIPTION: TERRY TURBINE DISCHARGE TO 'A' STEAM GENERATOR CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-36
CVO	CM	TP-02 : CM-36

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V047	26930-2 / K-3	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	AFW
DESCRIPTION: TDAFP SPLY TO "D" S/G CK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-36
CVO	CM	TP-02 : CM-36

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V060	26930-2 / A-11	Standard	CK	SA	10.0	3	C	Active	SYS	C	NA	AFW
DESCRIPTION: AUX FD PUMP CST SPLY CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-37
CVO	CM	TP-02 : CM-37

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V062	26930-2 / A-10	Standard	GA	MA	10.0	3	B	Active	O	C	NA	AFW
DESCRIPTION: TDAFP ALT SUCT MAN ISOL ON CST												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V064	26930-2 / C-8	Standard	GA	MA	8.0	3	B	Active	O	C	NA	AFW
DESCRIPTION: MOTOR DRIVEN AUXILIARY FEEDWATER PPB ALTERNATE SUCTION FROM CST												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V066	26930-2 / E-5	Standard	GA	MA	8.0	3	B	Active	O	C	NA	AFW

DESCRIPTION: MOTOR DRIVEN AUXILIARY FEEDWATER PPA ALTERNATE SUCTION FROM CST

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V882	26930-2 / M-5	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	AFW

DESCRIPTION: STEAM GENERATOR "A"AUXILIARY FEEDWATER CHECK

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-33
CVO	CM	TP-02 : CM-33

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V883	26930-2 / M-7	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	AFW

DESCRIPTION: STEAM GENERATOR "B" AUXILIARY FEEDWATER CHECK

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-33
CVO	CM	TP-02 : CM-33

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V884	26930-2 / K-9	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	AFW

DESCRIPTION: STEAM GENERATOR "C" AUXILIARY FEEDWATER CHECK VALVE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-33
CVO	CM	TP-02 : CM-33

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V885	26930-2 / M-2	Standard	CK	SA	4.0	2	C	Active	SYS	OC	NA	AFW
DESCRIPTION: STEAM GENERATOR "D" AUXILIARY FEEDWATER CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-33
CVO	CM	TP-02 : CM-33

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V997	26930-2 / E-3	Standard	GA	MA	8.0	3	B	Active	LO	C	NA	AFW
DESCRIPTION: STEAM GENERATOR FEEDWATER PUMP "A" DWST SUPPLY HEADER ISOLATION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V998	26930-2 / E-3	Standard	GA	MA	8.0	3	B	Active	LO	C	NA	AFW
DESCRIPTION: STEAM GENERATOR FEEDWATER PUMP "B" DWST SUPPLY HEADER ISOLATION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWA*V999	26930-2 / D-3	Standard	GA	MA	10.0	3	B	Active	LO	C	NA	AFW
DESCRIPTION: TURBINE DRIVEN AUX FEED PUMP ISOLATION FROM DWST												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*CTV41A	26930-3 / F-4	Standard	GA	AO	18.0	2	B	Active	O	C	C	FWS
DESCRIPTION: STEAM GENERATOR FEEDWATER STOP VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-06 : TP-03
PIT	24M	
STC	CS	ATJ-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*CTV41B	26930-3 / F-9	Standard	GA	AO	18.0	2	B	Active	O	C	C	FWS
DESCRIPTION: STEAM GENERATOR FEEDWATER STOP VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-06 : TP-03
PIT	24M	
STC	CS	ATJ-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*CTV41C	26930-4 / F-4	Standard	GA	AO	18.0	2	B	Active	O	C	C	FWS
DESCRIPTION: STEAM GENERATOR FEEDWATER STOP VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-06 : TP-03
PIT	24M	
STC	CS	ATJ-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3FWS*CTV41D	26930-4 / F-9	Standard	GA	AO	18.0	2	B	Active	O	C	C	FWS
DESCRIPTION: STEAM GENERATOR FEEDWATER STOP VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-06 : TP-03
PIT	24M	
STC	CS	ATJ-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*FCV510	26930-3 / D-4	Standard	GL	AO	16.0	2	B	Active	O	C	C	FWS
DESCRIPTION: STEAM GENERATOR "A" FEEDWATER FLOW CONTROL VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-06 : TP-03
PIT	24M	
STC	CS	ATJ-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*FCV520	26930-3 / D-9	Standard	GL	AO	16.0	2	B	Active	O	C	C	FWS
DESCRIPTION: STEAM GENERATOR 'B' FEEDWATER FLOW CONTROL VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-06 : TP-03
PIT	24M	
STC	CS	ATJ-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*FCV530	26930-4 / D-4	Standard	GL	AO	16.0	2	B	Active	O	C	C	FWS

DESCRIPTION: STEAM GENERATOR 'C' FEEDWATER FLOW CONTROL VALVE

TEST	FREQUENCY	Notes
FSC	CS	ATJ-06 : TP-03
PIT	24M	
STC	CS	ATJ-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*FCV540	26930-4 / D-9	Standard	GL	AO	16.0	2	B	Active	O	C	C	FWS

DESCRIPTION: STEAM GENERATOR 'D' FEEDWATER FLOW CONTROL VALVE

TEST	FREQUENCY	Notes
FSC	CS	ATJ-06 : TP-03
PIT	24M	
STC	CS	ATJ-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*LV550	26930-3 / D-3	Standard	GL	AO	6.0	2	B	Active	C	C	C	FWS

DESCRIPTION: STEAM GENERATOR 'A' FEEDWATER BYPASS LEVEL CONTROL VALVE

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*LV560	26930-3 / D-8	Standard	GL	AO	6.0	2	B	Active	C	C	C	FWS

DESCRIPTION: STEAM GENERATOR 'B' FEEDWATER BYPASS LEVEL CONTROL VALVE

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*LV570	26930-4 / D-3	Standard	GL	AO	6.0	2	B	Active	C	C	C	FWS
DESCRIPTION: STEAM GENERATOR 'C' FEEDWATER BYPASS LEVEL CONTROL VALVE												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*LV580	26930-4 / D-8	Standard	GL	AO	6.0	2	B	Active	C	C	C	FWS
DESCRIPTION: STEAM GENERATOR 'D' FEEDWATER BYPASS LEVEL CONTROL VALVE												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*V898	26930-4 / H-9	Standard	CK	SA	20.0	2	C	Active	SYS	C	NA	FWS
DESCRIPTION: STEAM GENERATOR 1D FEEDWATER CHECK VALVE												

TEST	FREQUENCY	Notes

CVC	CM	TP-02 : CM-45
CVO	CM	TP-02 : CM-45

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*V899	26930-4 / H-4	Standard	CK	SA	20.0	2	C	Active	SYS	C	NA	FWS
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-45
CVO	CM	TP-02 : CM-45

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*V920	26930-3 / H-9	Standard	CK	SA	20.0	2	C	Active	SYS	C	NA	FWS
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-45
CVO	CM	TP-02 : CM-45

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3FWS*V921	26930-3 / H-4	Standard	CK	SA	20.0	2	C	Active	SYS	C	NA	FWS
DESCRIPTION: CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-46
CVO	CM	TP-02 : CM-46

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3GSN*CTV105	26939-2 / D-10	Standard	GL	AO	1.0	2	A	Active	O	C	C	GN2
DESCRIPTION: N2 CONTAINMENT ISOLATION CTMT PENETRATION (124-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*CV8033	26939-2 / C-10	Standard	GL	AO	1.0	2	A	Active	O	C	C	GN2
DESCRIPTION: PRESSURIZER RELIEF TNK N2 SUPPLY ISOL CTMT PENETRATION (124-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HCS*V001	26915-1 / A-8	Standard	CK	SA	2.0	2	C	Active	SYS	O	NA	CPI
DESCRIPTION: HYDROGEN RECOMBINER INLET CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-46
CVO	CM	TP-02 : CM-46

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3HCS*V002	26915-1 / B-8	Standard	DIA	MA	2.0	2	A	Active	LC	OC	NA	CPI
DESCRIPTION: DBA HYDROGEN RECOMBINER SUPPLY CTMT PENETRATION (111-OUTSIDE)												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HCS*V003	26915-1 / B-8	Standard	DIA	MA	2.0	2	A	Active	LC	OC	NA	CPI
DESCRIPTION: DBA HYDROGEN RECOMBINER SUPPLY CTMT PENETRATION (111-OUTSIDE)												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HCS*V006	26915-1 / A-8	Standard	DIA	MA	2.0	2	A	Active	LC	OC	NA	CPI
DESCRIPTION: DBA HYDROGEN RECOMBINER DISCHARGE CTMT PENETRATION (113-OUTSIDE)												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HCS*V007	26915-1 / A-8	Standard	CK	SA	2.0	2	AC	Active	SYS	OC	NA	CPI
DESCRIPTION: DBA HYDROGEN RECOMBINER DISCHARGE CTMT PENETRATION (113-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-46

CVO	CM	TP-02 : CM-46
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HCS*V008	26915-1 / A-10	Standard	CK	SA	2.0	2	C	Active	SYS	O	NA	CPI
DESCRIPTION: HYDROGEN RECOMBINER INLET CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-46
CVO	CM	TP-02 : CM-46

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HCS*V009	26915-1 / B-10	Standard	DIA	MA	2.0	2	A	Active	LC	OC	NA	CPI
DESCRIPTION: DBA HYDROGEN RECOMBINER SUPPLY CTMT PENETRATION (112-OUTSIDE)												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HCS*V010	26915-1 / B-10	Standard	DIA	MA	2.0	2	A	Active	LC	OC	NA	CPI
DESCRIPTION: DBA HYDROGEN RECOMBINER SUPPLY CTMT PENETRATION (112-OUTSIDE)												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3HCS*V013	26915-1 / B-11	Standard	DIA	MA	2.0	2	A	Active	LC	OC	NA	CPI
DESCRIPTION: DBA HYDROGEN RECOMBINER DISCHARGE CTMT PENETRATION (114-OUTSIDE)												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HCS*V014	26915-1 / A-11	Standard	CK	SA	2.0	2	AC	Active	SYS	OC	NA	CPI
DESCRIPTION: DBA HYDROGEN RECOMBINER DISCHARGE CTMT PENETRATION (114-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-46
CVO	CM	TP-02 : CM-46
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVC*AOV20	26951-2 / M-2	Standard	BF	AO	10.0	3	B	Active	O	C	C	ACC
DESCRIPTION: CONTROL ROOM VENTILATION OUT ISOLATION VALVE												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVC*AOV21	26951-2 / M-3	Standard	BF	AO	10.0	3	B	Active	O	C	C	ACC
DESCRIPTION: CONTROL ROOM VENTILATION OUT ISOLATION VALVE												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVC*AOV22	26951-2 / M-2	Standard	BF	AO	16.0	3	B	Active	O	C	C	ACC
DESCRIPTION: CONTROL ROOM VENTILATION OUT ISOLATION VALVE												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVC*AOV23	26951-2 / M-3	Standard	BF	AO	16.0	3	B	Active	O	C	C	ACC
DESCRIPTION: CONTROL ROOM VENTILATION OUT ISOLATION VALVE												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVC*AOV25	26951-1 / A-4	Standard	BF	AO	16.0	3	B	Active	O	O	O	ACC
DESCRIPTION: CONTROL ROOM VENTILATION INLET ISOLATION VALVE												

TEST	FREQUENCY	Notes

FSO	CS	ATJ-40 : TP-03
PIT	24M	
STO	CS	ATJ-40

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVC*AOV26	26951-1 / B-5	Standard	BF	AO	16.0	3	B	Active	O	O	O	ACC
DESCRIPTION: CONTROL ROOM VENTILATION INLET ISOLATION VALVE												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-40 : TP-03
PIT	24M	
STO	CS	ATJ-40

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*PDV32A	26951-4 / J-6	Standard	GL	SO	3.0	3	B	Active	O	C	C	CBW
DESCRIPTION: CHLL WTR SPLY & RTN DIFF PRS (TRAIN A) IND & CNTRL MOD VLV CNTRL												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-34 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*PDV32B	26951-4 / J-8	Standard	GL	SO	3.0	3	B	Active	O	C	C	CBW
DESCRIPTION: CHLL WTR SPLY & RTN DIFF PRS (TRAIN B) IND & CNTRL MOD VLV CNTRL												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-34 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3HVK*TV39A	26951-5 / M-3	Standard	GL	SO	3.0	3	B	Active	O	O	O	CBW
DESCRIPTION: 3HVC*ACU2A CHILLED WATER RETURN TEMPERATURE CONTROL VALVE												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-33 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV39B	26951-5 / M-6	Standard	GL	SO	3.0	3	B	Active	O	O	O	CBW
DESCRIPTION: 3HVC*ACU2B CHILLED WATER RETURN TEMPERATURE CONTROL VALVE												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-33 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV41A	26951-5 / J-3	Standard	GL	SO	3.0	3	B	Active	O	O	O	CBW
DESCRIPTION: 3HVC-ACU1 CHILLED WATER COIL												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-33 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV41B	26951-5 / J-6	Standard	GL	SO	3.0	3	B	Active	O	O	O	CBW
DESCRIPTION: CONTROL ROOM AIR CONDITIONING UNIT 3HVC*ACU1B TEMP CONTROL												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-33 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV68A	26951-4 / J-6	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW

DESCRIPTION: SUPPLY ISOLATION

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV68B	26951-4 / J-9	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW

DESCRIPTION: SUPPLY ISOLATION

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV69A	26951-4 / K-5	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW

DESCRIPTION: SUPPLY ISOLATION

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV69B	26951-4 / K-9	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: SUPPLY ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV70A	26951-4 / J-6	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: CHILLED WATER SUPPLY HEADER ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV70B	26951-4 / J-8	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: SUPPLY ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV71A	26951-4 / J-6	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: SUPPLY ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV71B	26951-4 / J-8	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: SUPPLY ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV72A	26951-4 / L-5	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: RETURN ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV72B	26951-4 / L-9	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: RETURN ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV73A	26951-4 / M-5	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: RETURN ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV73B	26951-4 / M-9	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: RETURN ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV74A	26951-4 / L-6	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: RETURN ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV74B	26951-4 / L-8	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: RETURN ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3HVK*TV75A	26951-4 / M-6	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: RETURN ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV75B	26951-4 / M-8	Standard	GL	SO	3.0	3	B	Active	OC	OC	C	CBW
DESCRIPTION: RETURN ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV76A	26951-5 / D-4	Standard	GL	SO	3.0	3	B	Active	O	O	O	CBW
DESCRIPTION: ACU#4 CHILLED WATER TEMPERATURE CONTROL												

TEST	FREQUENCY	Notes
FSO	CS	ATJ-33 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV76B	26951-5 / D-8	Standard	GL	SO	3.0	3	B	Active	O	O	O	CBW

DESCRIPTION: ACU#4 CHILLED WATER TEMPERATURE CONTROL

TEST	FREQUENCY	Notes
FSO	CS	ATJ-33 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV77A	26951-5 / G-4	Standard	GL	SO	3.0	3	B	Active	O	O	O	CBW

DESCRIPTION: ACU#3 CHILLED WATER TEMPERATURE CONTROL

TEST	FREQUENCY	Notes
FSO	CS	ATJ-33 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*TV77B	26951-5 / G-8	Standard	GL	SO	3.0	3	B	Active	O	O	O	CBW

DESCRIPTION: ACU#3 CHILLED WATER TEMPERATURE CONTROL

TEST	FREQUENCY	Notes
FSO	CS	ATJ-33 : TP-04

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*V001	26951-4 / E-4	Standard	CK	SA	6.0	3	C	Active	SYS	O	NA	CBW

DESCRIPTION: CHECK VALVE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-22
CVO	CM	TP-02 : CM-22

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*V037	26951-4 / I-4	Standard	CK	SA	6.0	3	C	Active	SYS	O	NA	CBW

DESCRIPTION: CONTROL BUILDING CHILLED WATER CHECK VALVE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-22
CVO	CM	TP-02 : CM-22

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*V039	26951-4 / E-9	Standard	CK	SA	6.0	3	C	Active	SYS	O	NA	CBW

DESCRIPTION: CONTROL BUILDING CHILLED WATER CHECK VALVE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-22
CVO	CM	TP-02 : CM-22

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVK*V075	26951-4 / H-9	Standard	CK	SA	6.0	3	C	Active	SYS	O	NA	CBW

DESCRIPTION: CHECK VALVE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-22
CVO	CM	TP-02 : CM-22

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVU*CTV32A	26953-1 / F-9	Standard	BF	AO	42.0	2	A	Active	LC	C	C	CPH

DESCRIPTION: OUTSIDE CONTAINMENT PURGE INLET ISOLATION (86-OUTSIDE)

TEST	FREQUENCY	Notes
FSC	CS	ATJ-07 : TP-03
LTJ	J	

PIT	24M	
STC	CS	ATJ-07

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVU*CTV32B	26953-1 / F-7	Standard	BF	AO	42.0	2	A	Active	LC	C	C	CPH
DESCRIPTION: OUTSIDE CONTAINMENT PURGE OUTLET (85-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-07 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-07

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVU*CTV33A	26953-1 / H-9	Standard	BF	AO	42.0	2	A	Active	LC	C	C	CPH
DESCRIPTION: INSIDE CONTAINMENT PURGE SUPPLY (86-INSIDE)												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-07 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-07

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVU*CTV33B	26953-1 / H-7	Standard	BF	AO	42.0	2	A	Active	LC	C	C	CPH
DESCRIPTION: INSIDE CONTAINMENT PURGE OUTLET (85-INSIDE)												

TEST	FREQUENCY	Notes

FSC	CS	ATJ-07 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-07

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVU*V005	26953-1 / F-8	Standard	BF	MA	30.0	2	A	Passive	LC	C	NA	CPH
DESCRIPTION: OUTSIDE CONTAINMENT PURGE SUPPLY (86-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3IAS*MOV72	26938-3 / G-5	Standard	GA	MO	2.0	2	A	Active	O	C	NA	AIC
DESCRIPTION: CTMT INSTRUMENT AIR ISOLATION (54-INSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-08
LTJ	J	
PIT	III	
STC	CS	ATJ-08

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3IAS*PV15	26938-3 / F-5	Standard	GL	AO	1.5	2	A	Active	O	C	C	AIC
DESCRIPTION: CTMT INSTRUMENT AIR ISOLATION (54-OUTSIDE)												

TEST	FREQUENCY	Notes

FSC	CS	ATJ-08 : TP-03
LTJ	J	
PIT	24M	
STC	CS	ATJ-08

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3LMS*MOV40A	26954-1 / F-6	Standard	GL	MO	1.5	2	B	Active	O	O	NA	CSF
DESCRIPTION: PT937 CONTAINMENT PRESSURE TAP ISOLATION (13C-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3LMS*MOV40B	26954-1 / F-7	Standard	GL	MO	1.5	2	B	Active	O	O	NA	CSF
DESCRIPTION: PT936 CONTAINMENT PRESSURE TAP ISOLATION (68-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3LMS*MOV40C	26954-1 / F-8	Standard	GL	MO	1.5	2	B	Active	O	O	NA	CSF
DESCRIPTION: PT935 CONTAINMENT PRESSURE TAP ISOLATION (9A-OUTSIDE)												

TEST	FREQUENCY	Notes

DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3LMS*MOV40D	26954-1 / F-8	Standard	GL	MO	1.5	2	B	Active	O	O	NA	CSF
DESCRIPTION: PT934 CONTAINMENT PRESSURE TAP ISOLATION (33A-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*AOV31A	26923-1 / E-2	Standard	GL	AO	3.0	2	B	Active	C	O	O	STG
DESCRIPTION: TERRY TURBINE STEAM ISOLATION TRAIN A												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*AOV31B	26923-1 / I-2	Standard	GL	AO	3.0	2	B	Active	C	O	O	STG
DESCRIPTION: TERRY TURBINE STEAM ISOLATION TRAIN A												

TEST	FREQUENCY	Notes
FSO	3M	TP-03

PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*AOV31D	26923-1 / B-2	Standard	GL	AO	3.0	2	B	Active	C	O	O	STG
DESCRIPTION: TERRY TURBINE STEAM ISOLATION TRAIN B												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*AOV65	26923-1 / L-4	Standard	GL	AO	0.75	3	B	Active	O	C	C	STG
DESCRIPTION: TDAFP TURB EXH SILENCER DRAIN												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*CTV27A	26923-2 / M-4	Standard	GL	AO	30.0	2	B	Active	O	C	C	STG
DESCRIPTION: MAIN STEAM ISOLATION TRIP VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-09
PIT	24M	
STC	CS	ATJ-09

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*CTV27B	26923-2 / L-8	Standard	GL	AO	30.0	2	B	Active	O	C	C	STG
DESCRIPTION: MAIN STEAM ISOLATION TRIP VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-09
PIT	24M	
STC	CS	ATJ-09

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*CTV27C	26923-5 / L-4	Standard	GL	AO	30.0	2	B	Active	O	C	C	STG
DESCRIPTION: MAIN STEAM ISOLATION TRIP VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-09
PIT	24M	
STC	CS	ATJ-09

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*CTV27D	26923-5 / K-8	Standard	GL	AO	30.0	2	B	Active	O	C	C	STG
DESCRIPTION: MAIN STEAM ISOLATION TRIP VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-09
PIT	24M	
STC	CS	ATJ-09

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3MSS*HV28A	26923-2 / M-5	Standard	GL	AO	3.0	2	B	Active	C	C	C	STG
DESCRIPTION: MAIN STEAM STEAM GENERATOR 1 MSIV BYPASS												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-35 : TP-03
PIT	24M	
STC	CS	ATJ-35

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*HV28B	26923-2 / L-10	Standard	GL	AO	3.0	2	B	Active	C	C	C	STG
DESCRIPTION: STEAM GENERATOR 2 MSIV BYPASS												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-35 : TP-03
PIT	24M	
STC	CS	ATJ-35

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*HV28C	26923-5 / L-5	Standard	GL	AO	3.0	2	B	Active	C	C	C	STG
DESCRIPTION: STEAM GENERATOR 3 MSIV BYPASS												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-35 : TP-03
PIT	24M	
STC	CS	ATJ-35

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*HV28D	26923-5 / K-10	Standard	GL	AO	3.0	2	B	Active	C	C	C	STG

DESCRIPTION: STEAM GENERATOR 4 MSIV BYPASS

TEST	FREQUENCY	Notes
FSC	CS	ATJ-35 : TP-03
PIT	24M	
STC	CS	ATJ-35

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV17A	26923-1 / H-2	Standard	CK	MO	3.0	2	BC	Active	SYS	OC	NA	STG

DESCRIPTION: MAIN STEAM SG1 SUPPLY ISOLATION TERRY TURBINE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-48
CVO	CM	TP-02 : CM-48
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV17B	26923-1 / K-2	Standard	CK	MO	3.0	2	BC	Active	SYS	OC	NA	STG

DESCRIPTION: S/G #2 SUPPLY ISOLATION TERRY TURBINE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-48
CVO	CM	TP-02 : CM-48
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV17D	26923-1 / C-2	Standard	CK	MO	3.0	2	BC	Active	SYS	OC	NA	STG
DESCRIPTION: STEAM GENERATOR 4 SUPPLY ISOLATION TERRY TURBINE												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-48
CVO	CM	TP-02 : CM-48
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV18A	26923-2 / J-3	Standard	GA	MO	8.0	2	B	Active	O	OC	NA	STG
DESCRIPTION: STEAM GENERATOR 1 PRESSURE RELIEF ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV18B	26923-2 / J-8	Standard	GA	MO	8.0	2	B	Active	O	OC	NA	STG
DESCRIPTION: STEAM GENERATOR 2 PRESSURE RELIEF ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV18C	26923-5 / J-4	Standard	GA	MO	8.0	2	B	Active	O	OC	NA	STG
DESCRIPTION: STEAM GENERATOR 3 PRESSURE RELIEF ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV18D	26923-5 / J-8	Standard	GA	MO	8.0	2	B	Active	O	OC	NA	STG
DESCRIPTION: STEAM GENERATOR 4 PRESSURE RELIEF ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV74A	26923-2 / K-2	Standard	GL	MO	8.0	2	B	Active	C	OC	NA	STG
DESCRIPTION: STEAM GENERATOR 1 PRESSURE RELIEF BYPASS												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	TP-08; Manual Cycle <= 24M
FCE	3M	

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV74B	26923-2 / J-7	Standard	GL	MO	8.0	2	B	Active	C	OC	NA	STG
DESCRIPTION: STEAM GENERATOR 2 PRESSURE RELIEF BYPASS												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	TP-08; Manual Cycle <= 24M
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV74C	26923-5 / K-3	Standard	GL	MO	8.0	2	B	Active	C	OC	NA	STG
DESCRIPTION: STEAM GENERATOR 3 PRESSURE RELIEF BYPASS												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	TP-08; Manual Cycle <= 24M
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*MOV74D	26923-5 / J-7	Standard	GL	MO	8.0	2	B	Active	C	OC	NA	STG
DESCRIPTION: STEAM GENERATOR 4 PRESSURE RELIEF BYPASS												

TEST	FREQUENCY	Notes
DIAG	III	

FCE	24M	TP-08; Manual Cycle <= 24M
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*PV20A	26923-2 / J-2	Standard	GL	AO	8.0	2	B	Active	C	C	C	STG
DESCRIPTION: MAIN STEAM PRESSURE RELIEVING VALVE CONTROL												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*PV20B	26923-2 / J-7	Standard	GL	AO	8.0	2	B	Active	C	C	C	STG
DESCRIPTION: MAIN STEAM PRESSURE RELIEVING CONTROL												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*PV20C	26923-5 / J-3	Standard	GL	AO	8.0	2	B	Active	C	C	C	STG
DESCRIPTION: MAIN STEAM PRESSURE RELIEVING CONTROL												

TEST	FREQUENCY	Notes
FSC	3M	TP-03

PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*PV20D	26923-5 / I-7	Standard	GL	AO	8.0	2	B	Active	C	C	C	STG
DESCRIPTION: MAIN STEAM PRESS RELIEVING CONTROL												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV22A	26923-2 / H-2	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "A" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV22B	26923-2 / G-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "B" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV22C	26923-5 / H-3	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG

DESCRIPTION: "C" STEAM GENERATOR SAFETY VALVE		
TEST	**FREQUENCY**	**Notes**
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV22D	26923-5 / F-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "D" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV23A	26923-2 / G-2	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "A" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV23B	26923-2 / F-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "B" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV23C	26923-5 / G-3	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "C" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV23D	26923-5 / F-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "D" STEAM GENERATER SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV24A	26923-2 / I-2	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "A" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV24B	26923-2 / H-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "B" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV24C	26923-5 / H-3	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "C" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes

SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV24D	26923-5 / G-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "D" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV25A	26923-2 / F-2	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "A" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV25B	26923-2 / E-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "B" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV25C	26923-5 / F-3	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "C" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV25D	26923-5 / E-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "D" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV26A	26923-2 / J-2	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "A" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV26B	26923-2 / I-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "B" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3MSS*RV26C	26923-5 / I-3	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "C" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3MSS*RV26D	26923-5 / H-7	Standard	SV	SA	6.0	2	C	Active	C	OC	NA	STG
DESCRIPTION: "D" STEAM GENERATOR SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3PGS*CV8028	26919-1 / N-1	Standard	GL	AO	3.0	2	A	Active	O	C	C	PWS
DESCRIPTION: PRIMARY GRADE WATER TO PRT CTMT PENETRATION (15-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3PGS*CV8046	26919-1 / L-1	Standard	GL	AO	3.0	2	A	Active	O	C	C	PWS
DESCRIPTION: PRIMARY GRADE WATER TO PRT CTMT PENETRATION (15-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3PGS*RV77	26919-1 / M-1	Standard	RV	SA	.75	2	AC	Active	C	OC	NA	PWS

DESCRIPTION: PRIMARY GRADE SYSTEM CONTAINMENT PENETRATION (15 OUTSIDE)

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*AOV27	26915 / G-4	Standard	BF	AO	12.0	2	B	Active	O	C	C	QSS

DESCRIPTION: REFUEL WATER RECIRCULATING PUMP SUCTION ISOLATION

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*AOV28	26915 / G-4	Standard	BF	AO	12.0	2	B	Active	O	C	C	QSS

DESCRIPTION: REFUEL WATER RECIRCULATING PUMP SUCTION ISOLATION

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*MOV34A	26915 / K-6	Standard	BF	MO	12.0	2	A	Active	C	OC	NA	QSS

DESCRIPTION: QUENCH SPRAY PUMP DISCHARGE CTMT PENETRATION (100-OUTSIDE)

TEST	FREQUENCY	Notes

DIAG	III	
FCE	3M	
LTJ	J	
PIT	III	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*MOV34B	26915 / K-8	Standard	BF	MO	12.0	2	A	Active	C	OC	NA	QSS
DESCRIPTION: QUENCH SPRAY PUMP DISCHARGE CTMT PENETRATION (101-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LTJ	J	
PIT	III	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V001	26915-1 / H-5	Standard	BF	MA	14.0	2	B	Active	LO	OC	NA	QSS
DESCRIPTION: REFUEL WATER STORAGE TANK TO QUENCH SPRAY P3A ISOLATION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V002	26915-1 / H-6	Standard	BF	MA	14.0	2	B	Active	LO	OC	NA	QSS
DESCRIPTION: QUENCH SPRAY PUMP A SUCTION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V004	26915-1 / L-6	Standard	CK	SA	12.0	2	AC	Active	SYS	OC	NA	QSS
DESCRIPTION: QUENCH SPRAY PP DISCHARGE CTMT PENETRATION (100-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-05
CVO	CM	TP-02 : CM-05
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V005	26915-1 / H-5	Standard	BF	MA	14.0	2	B	Active	LO	OC	NA	QSS
DESCRIPTION: REFUEL WATER STORAGE TANK TO QUENCH SPRAY PUMP P3B ISOLATION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V006	26915-1 / H-8	Standard	BF	MA	14.0	2	B	Active	LO	OC	NA	QSS
DESCRIPTION: QUENCH SPRAY PUMP B SUCTION												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V008	26915-1 / L-8	Standard	CK	SA	12.0	2	AC	Active	SYS	OC	NA	QSS

DESCRIPTION: QUENCH SPRAY PP DISCHARGE CTMT PENETRATION (101-INSIDE)

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-05
CVO	CM	TP-02 : CM-05
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V976	26915-1 / L-8	Standard	CK	SA	8.0	2	C	Active	SYS	O	NA	QSS

DESCRIPTION: "B"QUENCH SPRAY HDR CHK.

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-06
CVO	CM	TP-02 : CM-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V977	26915-1 / L-7	Standard	CK	SA	8.0	2	C	Active	SYS	O	NA	QSS

DESCRIPTION: "A" QUENCH SPRAY HDR. CHK

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-06
CVO	CM	TP-02 : CM-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V978	26915-1 / M-8	Standard	CK	SA	12.0	2	C	Active	SYS	O	NA	QSS

DESCRIPTION: "B" QUENCH SPRAY HDR. CHK.

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-06

CVO	CM	TP-02 : CM-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3QSS*V979	26915-1 / M-7	Standard	CK	SA	12.0	2	C	Active	SYS	O	NA	QSS
DESCRIPTION: "A" QUENCH SPRAY HDR. CHK.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-06
CVO	CM	TP-02 : CM-06

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*AV8037A	26902-6 / C-2	Standard	GL	AO	2.0	1	B	Passive	C	C	C	RCS
DESCRIPTION: REACTOR COOLANT LOOP 1 DRAIN ISOLATION												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*AV8037B	26902-6 / C-3	Standard	GL	AO	2.0	1	B	Passive	C	C	C	RCS
DESCRIPTION: REACTOR COOLANT LOOP 2 DRAIN ISOLATION												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*AV8037C	26902-6 / C-4	Standard	GL	AO	2.0	1	B	Passive	C	C	C	RCS
DESCRIPTION: REACTOR COOLANT LOOP 3 DRAIN ISOLATION												

TEST	FREQUENCY	Notes

PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*AV8037D	26902-6 / C-5	Standard	GL	AO	2.0	1	B	Passive	C	C	C	RCS
DESCRIPTION: REACTOR COOLANT 4 DRAIN ISOLATION												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*AV8145	26902-3 / L-2	Standard	GL	AO	2.0	1	B	Passive	C	C	C	RCS
DESCRIPTION: PRESSURIZER AUXILIARY SPRAY(CVCS)												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*HCV442A	26902-6 / J-6	Standard	GL	SO	1.0	2	B	Active	C	OC	C	RCS
DESCRIPTION: REACTOR VESSEL 3RCS*RV1 VENT VALVE												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-13 : TP-03
PIT	24M	
STC	CS	ATJ-13
STO	CS	ATJ-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*HCV442B	26902-6 / K-6	Standard	GL	SO	1.0	2	B	Active	C	OC	C	RCS

DESCRIPTION: B REACTOR HEAD VENT

TEST	FREQUENCY	Notes
FSC	CS	ATJ-13 : TP-03
PIT	24M	
STC	CS	ATJ-13
STO	CS	ATJ-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*LCV459	26902-2 / B-11	Standard	GL	AO	3.0	1	B	Active	O	C	C	RCS

DESCRIPTION: LETDOWN ISOLATION

TEST	FREQUENCY	Notes
FSC	CS	ATJ-31 : TP-03
PIT	24M	
STC	CS	ATJ-31

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*LCV460	26902-2 / C-11	Standard	GL	AO	3.0	1	B	Active	O	C	C	RCS

DESCRIPTION: LETDOWN ISOLATION

TEST	FREQUENCY	Notes
FSC	CS	ATJ-31 : TP-03
PIT	24M	
STC	CS	ATJ-31

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*MV8000A	26902-3 / D-9	Standard	GA	MO	3.0	1	B	Active	O	OC	NA	RCS

DESCRIPTION: PRESSURIZER POWER RELIEF ISOLATION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-42
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*MV8000B	26902-3 / D-6	Standard	GA	MO	3.0	1	B	Active	O	OC	NA	RCS

DESCRIPTION: PRESSURIZER POWER RELIEF ISOLATION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-42
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*MV8098	26902-6 / K-5	Standard	GA	MO	1.0	2	B	Passive	C	C	NA	RCS

DESCRIPTION: REACTOR VESSEL TO EXCESS LETDOWN

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*PCV455A	26902-3 / C-9	Standard	GL	SO	3.0	1	B	Active	C	O	C	RCS

DESCRIPTION: PRESSURIZER PRESSURE RELIEF

TEST	FREQUENCY	Notes
FSC	RR	ATJ-12 : TP-03

LT	60M	
PIT	24M	
STO	RR	ATJ-12

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*PCV456	26902-3 / C-6	Standard	GL	SO	3.0	1	B	Active	C	O	C	RCS
DESCRIPTION: PRESSURIZER PRESSURE RELIEF												

TEST	FREQUENCY	Notes
FSC	RR	ATJ-12 : TP-03
LT	60M	
PIT	24M	
STO	RR	ATJ-12

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*SV8010A	26902-3 / E-2	Standard	SV	SA	6.0	1	C	Active	C	OC	NA	RCS
DESCRIPTION: PRESSURIZER SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*SV8010B	26902-3 / H-2	Standard	SV	SA	6.0	1	C	Active	C	OC	NA	RCS
DESCRIPTION: PRESSURIZER SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*SV8010C	26902-3 / J-2	Standard	SV	SA	6.0	1	C	Active	C	OC	NA	RCS
DESCRIPTION: PRESSURIZER SAFETY VALVE												

TEST	FREQUENCY	Notes
SP	60M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*SV8095A	26902-6 / J-3	Standard	GL	SO	1.0	1	B	Active	C	OC	C	RCS
DESCRIPTION: A REACTOR VESSEL HEAD VENT ISOLATION UPSTREAM												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-13 : TP-03
PIT	24M	
STC	CS	ATJ-13
STO	CS	ATJ-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*SV8095B	26902-6 / J-3	Standard	GL	SO	1.0	1	B	Active	C	OC	C	RCS
DESCRIPTION: B REACTOR VESSEL HEAD VENT ISOLATION UPSTREAM												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-13 : TP-03
PIT	24M	
STC	CS	ATJ-13
STO	CS	ATJ-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3RCS*SV8096A	26902-6 / J-4	Standard	GL	SO	1.0	1	B	Active	C	OC	C	RCS
DESCRIPTION: A REACTOR VESSEL HEAD VENT ISOLATION DOWNSTREAM												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-13 : TP-03
PIT	24M	
STC	CS	ATJ-13
STO	CS	ATJ-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*SV8096B	26902-6 / J-4	Standard	GL	SO	1.0	1	B	Active	C	OC	C	RCS
DESCRIPTION: B REACTOR HEAD VENT ISOLATION DOWNSTREAM												

TEST	FREQUENCY	Notes
FSC	CS	ATJ-13 : TP-03
PIT	24M	
STC	CS	ATJ-13
STO	CS	ATJ-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V026	26902-1 / K-5	Standard	CK	SA	6.0	1	AC	Active	SYS	OC	NA	RCS
DESCRIPTION: SIH TO RCS LOOP 1 HOT LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-49
CVO	CM	TP-02 : CM-49
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V029	26902-1 / J-8	Standard	CK	SA	1.5	1	AC	Active	C	OC	NA	RCS
DESCRIPTION: SIH TO RCS LOOP 1,COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-51
CVO	CM	TP-02 : CM-51
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V030	26902-1 / J-9	Standard	CK	SA	10.0	1	AC	Active	C	OC	NA	RCS
DESCRIPTION: SIL TO RCS LOOP 1 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-52
CVO	CM	TP-02 : CM-52
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V031	26902-1 / J-8	Standard	CK	SA	3.0	1	C	Active	O	OC	NA	RCS
DESCRIPTION: CHARGING SYSTEM TO REACTOR COOLANT LOOP 1												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-53
CVO	CM	TP-02 : CM-53

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V032	26902-1 / J-8	Standard	CK	SA	3.0	1	C	Active	O	OC	NA	RCS

DESCRIPTION: CHARGING SYSTEM TO REACTOR COOLANT LOOP 1

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-53
CVO	CM	TP-02 : CM-53

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V069	26902-4 / J-3	Standard	CK	SA	6.0	1	AC	Active	C	OC	NA	RCS

DESCRIPTION: RHS/SI TO RCS LOOP 2 HOT LEG

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-49
CVO	CM	TP-02 : CM-49
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V070	26902-4 / J-10	Standard	CK	SA	1.5	1	AC	Active	C	OC	NA	RCS

DESCRIPTION: SIH TO RCS LOOP 2,COLD LEG

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-51
CVO	CM	TP-02 : CM-51
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V071	26902-4 / I-10	Standard	CK	SA	10.0	1	AC	Active	C	OC	NA	RCS

DESCRIPTION: SIL TO RCS LOOP 2 COLD LEG

TEST	FREQUENCY	Notes

CVC	CM	TP-02 : CM-52
CVO	CM	TP-02 : CM-52
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V102	26902-2 / B-4	Standard	CK	SA	6.0	1	AC	Active	C	OC	NA	RCS
DESCRIPTION: SIH TO RCS LOOP 2 HOT LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-49
CVO	CM	TP-02 : CM-49
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V106	26902-2 / B-9	Standard	CK	SA	1.5	1	AC	Active	C	OC	NA	RCS
DESCRIPTION: SIH TO RCS LOOP 3 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-51
CVO	CM	TP-02 : CM-51
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V107	26902-2 / B-9	Standard	CK	SA	10.0	1	AC	Active	C	OC	NA	RCS
DESCRIPTION: SIL TO RCS LOOP 3 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-52

CVO	CM	TP-02 : CM-52
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V142	26902-5 / B-5	Standard	CK	SA	6.0	1	AC	Active	C	OC	NA	RCS
DESCRIPTION: RHS/SI TO RCS LOOP 4 HOT LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-49
CVO	CM	TP-02 : CM-49
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V145	26902-5 / B-5	Standard	CK	SA	1.5	1	AC	Active	C	OC	NA	RCS
DESCRIPTION: SIH TO RCS LOOP 4,COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-51
CVO	CM	TP-02 : CM-51
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V146	26902-5 / A-7	Standard	CK	SA	10.0	1	AC	Active	C	OC	NA	RCS
DESCRIPTION: SIL TO RCS LOOP 4 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-52
CVO	CM	TP-02 : CM-52

LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V147	26902-5 / B-6	Standard	CK	SA	3.0	1	C	Active	SYS	OC	NA	RCS
DESCRIPTION: CHARGING SYSTEM TO REACTOR COOLANTLOOP 4												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-53
CVO	CM	TP-02 : CM-53

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RCS*V148	26902-5 / B-7	Standard	CK	SA	3.0	1	C	Active	SYS	OC	NA	RCS
DESCRIPTION: CHARGING SYSTEM TO REACTOR COOLANTLOOP4												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-53
CVO	CM	TP-02 : CM-53

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*FCV610	26912-1 / F-5	Standard	GL	MOL	2.0	2	B	Active	O	OC	NA	RHR
DESCRIPTION: RESIDUAL HEAT REMOVAL PUMP P1A MINIFLOW RECIRCULATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3RHS*FCV611	26912-1 / E-11	Standard	GL	MOL	2.0	2	B	Active	O	OC	NA	RHR
DESCRIPTION: RHR PUMP P1B MINIFLOW RECIRCULATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*FCV618	26912-1 / E-7	Standard	BF	AO	8.0	2	B	Active	O	OC	O	RHR
DESCRIPTION: RHS HX E1A BYP												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
FSO	3M	TP-03
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*FCV619	26912-1 / E-8	Standard	BF	AO	8.0	2	B	Active	O	OC	O	RHR
DESCRIPTION: RHS HX E1B BYP												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise
FSO	3M	TP-03
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*HCV606	26912-1 / G-6	Standard	BF	AO	10.0	2	B	Active	O	O	O	RHR

DESCRIPTION: RES HX E1A FLOW CONT		
TEST	**FREQUENCY**	**Notes**
FSO	3M	TP-03
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*HCV607	26912-1 / F-10	Standard	BF	AO	10.0	2	B	Active	O	O	O	RHR
DESCRIPTION: RESIDUAL HEAT REMOVAL HEAT EXCHANGER E1B FLOW CONTROL												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*MV8701A	26912-1 / C-3	Standard	GA	MO	12.0	1	A	Active	LC	OC	NA	RHR
DESCRIPTION: RHR PMP SUCTION FROM HOT LEGS CTMT PENETRATION (91-INSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-14
LTJ	J	
LTP	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*MV8701B	26912-1 / C-4	Standard	GA	MO	12.0	2	A	Active	LC	OC	NA	RHR
DESCRIPTION: RHR PUMP SUCTION FROM HOT LEGS CTMT PENETRATION (91-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-14
FCE	24M	TP-08; Manual Cycle <= 24M
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*MV8701C	26912-1 / G-2	Standard	GA	MO	12.0	1	A	Active	LC	OC	NA	RHR
DESCRIPTION: RESIDUAL HEAT REMOVAL INLET ISOLATION VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-14
LTP	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*MV8702A	26912-1 / A-10	Standard	GA	MO	12.0	2	A	Active	LC	OC	NA	RHR
DESCRIPTION: RHR PMP SUCTION FROM HOT LEGS CTMT PENETRATION (92-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-14
FCE	24M	TP-08; Manual Cycle <= 24M
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*MV8702B	26912-1 / A-4	Standard	GA	MO	12.0	1	A	Active	LC	OC	NA	RHR
DESCRIPTION: RHR PMP SUCTION FROM HOT LEGS CTMT PENETRATION 92												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-14
LTJ	J	
LTP	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*MV8702C	26912-1 / A-2	Standard	GA	MO	12.0	1	A	Active	LC	OC	NA	RHR
DESCRIPTION: RESIDUAL HEAT REMOVAL INLET ISOLATION VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-14
LTP	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*MV8716A	26912-1 / I-7	Standard	GA	MO	10.0	2	B	Active	O	OC	NA	RHR
DESCRIPTION: XFER CONN ISO (CONTACT ISI BEFORE WORK ON VLV)												

TEST	FREQUENCY	Notes
DIAG	III	

FCE	CS	ATJ-15
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*MV8716B	26912-1 / I-9	Standard	GA	MO	10.0	2	B	Active	O	OC	NA	RHR
DESCRIPTION: XFER CONN.ISO (CONTACT ISI BEFORE ANY WORK ON VL)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-15
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*RV37A	26912-1 / F-1	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	RHR
DESCRIPTION: A RHS SUCTION HEADER CONTAINMENT RELIEF (91-INSIDE)												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*RV37B	26912-1 / A-4	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	RHR
DESCRIPTION: B RHS SUCTION HEADER CONTAINMENT RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*RV8708A	26912-1 / C-3	Standard	RV	SA	4.0	2	AC	Active	C	OC	NA	RHR

DESCRIPTION: RHS PUMP A SUCTION HEADER RELIEF (91-OUTSIDE)

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*RV8708B	26912-1 / A-7	Standard	RV	SA	4.0	2	AC	Active	C	OC	NA	RHR

DESCRIPTION: RHS PUMP B SUCTION HEADER RELIEF (92-OUTSIDE)

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*V001	26912-1 / D-6	Standard	CK	SA	10.0	2	C	Active	SYS	O	NA	RHR

DESCRIPTION: RHR PUMP 1A DISCHARGE CHECK

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-25
CVO	CM	TP-02 : CM-25

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*V005	26912-1 / C-10	Standard	CK	SA	10.0	2	C	Active	SYS	O	NA	RHR

DESCRIPTION: RHR PUMP 1B DISCHARGE CHECK

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-25
CVO	CM	TP-02 : CM-25

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RHS*V043	26912-1 / H7	Standard	GA	MA	8	2	A	Passive	LC	C	NA	RHR
DESCRIPTION: RHR Test line to RWST isolation												

TEST	FREQUENCY	Notes
LT	24M	IN 91-56

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MOV20A	26912-3 / L-9	Standard	BF	MOL	10.0	2	A	Active	O	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP DISCHARGE CTMT PENETRATION (110-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MOV20B	26912-3 / J-4	Standard	BF	MOL	10.0	2	A	Active	O	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP DISCHARGE CTMT PENETRATION (108-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3RSS*MOV20C	26912-3 / J-7	Standard	BF	MOL	10.0	2	A	Active	O	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP DISCHARGE CTMT PENETRATION (109-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MOV20D	26912-3 / L-3	Standard	BF	MOL	10.0	2	A	Active	O	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP DISCHARGE CTMT PENETRATION (107-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MOV23A	26912-3 / C-10	Standard	BF	MOL.	12.0	2	A	Active	O	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP SUCTION CTMT PENETRATION (102-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MOV23B	26912-3 / C-4	Standard	BF	MOL	12.0	2	A	Active	O	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP SUCTION CTMT PENETRATION (104-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MOV23C	26912-3 / C-8	Standard	BF	MOL	12.0	2	A	Active	O	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP SUCTION CTMT PENETRATION (103-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MOV23D	26912-3 / C-2	Standard	BF	MOL	12.0	2	A	Active	O	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP SUCTION CTMT PENETRATION (105-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	24M	

LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MOV38A	26912-3 / F-11	Standard	GA	MO	4.0	2	B	Passive	C	OC	NA	CRS
DESCRIPTION: 3RSS*P1A MINIFLOW RECIRC												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MOV38B	26912-3 / F-5	Standard	GA	MO	4.0	2	B	Passive	C	OC	NA	CRS
DESCRIPTION: 3RSS*P1B MINIFLOW RECIRC												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MV8837A	26912-3 / J-9	Standard	GA	MO	8.0	2	B	Active	C	OC	NA	CRS
DESCRIPTION: RSS TO RHR TRANSFER CONNECTION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	RR	ATJ-36
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MV8837B	26912-3 / J-4	Standard	GA	MO	8.0	2	B	Active	C	OC	NA	CRS

DESCRIPTION: RSS TO RHR TRANSFER CONNECTION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	RR	ATJ-36
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MV8838A	26912-3 / J-8	Standard	GA	MO	8.0	2	B	Active	LC	OC	NA	CRS

DESCRIPTION: RSS TO RHR TRANSFER CONNECTION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	RR	ATJ-36
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*MV8838B	26912-3 / J-3	Standard	GA	MO	8.0	2	B	Active	LC	OC	NA	CRS

DESCRIPTION: RSS TO RHR TRANSFER CONNECTION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	RR	ATJ-36
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V003	26912-3 / L-4	Standard	CK	SA	10.0	2	AC	Active	SYS	OC	NA	CRS

DESCRIPTION: CTMT RECIRCULATION PUMP DISCHARGE CTMT PENETRATION (107-INSIDE)

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-09
CVO	CM	TP-02 : CM-09
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V006	26912-3 / K-5	Standard	CK	SA	10.0	2	AC	Active	SYS	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP DISCHARGE CTMT PENETRATION (108-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-09
CVO	CM	TP-02 : CM-09
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V009	26912-3 / K-7	Standard	CK	SA	10.0	2	AC	Active	SYS	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP DISCHARGE CTMT PENETRATION (109-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-09
CVO	CM	TP-02 : CM-09
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V012	26912-3 / L-7	Standard	CK	SA	10.0	2	AC	Active	SYS	OC	NA	CRS
DESCRIPTION: CTMT RECIRCULATION PUMP DISCHARGE CTMT PENETRATION (110-INSIDE)												

TEST	FREQUENCY	Notes

CVC	CM	TP-02 : CM-09
CVO	CM	TP-02 : CM-09
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V035	26912-3 / J-3	Standard	CK	SA	8.0	2	C	Active	SYS	O	NA	CRS
DESCRIPTION: CHECK VLV CTMT RECIRC. PP B/D TO LPSI												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-26
CVO	CM	TP-02 : CM-26

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V036	26912-3 / J-9	Standard	CK	SA	8.0	2	C	Active	SYS	O	NA	CRS
DESCRIPTION: CHECK VLV CTMT RECIRC. PP A/C TO LPSI												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-26
CVO	CM	TP-02 : CM-26

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V907	26912-3 / F-10	Standard	CK	SA	1	2	C	Active	SYS	O	NA	CRS
DESCRIPTION: RSS PUMP CASING VENT												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-39
CVO	RR	ATJ-39

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V908	26912-3 / F-4	Standard	CK	SA	1	2	C	Active	SYS	O	NA	CRS
DESCRIPTION: RSS PUMP CASING VENT												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-39
CVO	RR	ATJ-39

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V909	26912-3 / F-8	Standard	CK	SA	1	2	C	Active	SYS	O	NA	CRS
DESCRIPTION: RSS PUMP CASING VENT												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-39
CVO	RR	ATJ-39

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3RSS*V910	26912-3 / F-2	Standard	CK	SA	1	2	C	Active	SYS	O	NA	CRS
DESCRIPTION: RSS PUMP CASING VENT												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-39
CVO	RR	ATJ-39

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SAS*V050	26938-1 / F-4	Standard	GL	MA	2.0	2	A	Passive	LC	C	NA	ASA
DESCRIPTION: SERVICE AIR CTMT BUILDING BRANCH ISOLATION (52-OUTSIDE)												

TEST	FREQUENCY	Notes

LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SAS*V875	26938-1 / F-4	Standard	GL	MA	2.0	2	A	Passive	LC	C	NA	ASA
DESCRIPTION: SERVICE AIR CTMT BUILDING HEADER ISOLATION (52-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SFC*RV52A	26911-1 / J-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SFC
DESCRIPTION: 'A' Fuel Pool Cooler Outlet												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SFC*RV52B	26911-1 / J-10	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SFC
DESCRIPTION: 'B' Fuel Pool Cooler Outlet												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SFC*V003	26911-1 / G-9	Standard	CK	SA	10.0	3	C	Active	SYS	OC	NA	SFC
DESCRIPTION: FUEL POOL COOLING PUMP P1A DISCHARGE CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	3M	

CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SFC*V006	26911-1 / G-11	Standard	CK	SA	10.0	3	C	Active	SYS	OC	NA	SFC
DESCRIPTION: FUEL POOL COOLING PUMP P1B DISCHARGE CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SFC*V989	26911 / E-3	Standard	GA	MA	4.0	3	A	Passive	LC	C	NA	SFC
DESCRIPTION: REFUEL CAVITY PURIFICATION OUTLET CTMT PENETRAT(60-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SFC*V990	26911 / D-3	Standard	GA	MA	4.0	3	A	Passive	LC	C	NA	SFC
DESCRIPTION: REFUELING CAVITY PURIFICATION OUTLET CTMT PENETRATION (60-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SFC*V991	26911 / D-1	Standard	GA	MA	3.0	3	A	Passive	LC	C	NA	SFC
DESCRIPTION: REFUELING CAVITY PURIFICATION INLET CTMT PENETRATION (59-INSIDE)												

TEST	FREQUENCY	Notes

LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SFC*V992	26911 / E-1	Standard	GA	MA	3.0	3	A	Passive	LC	C	NA	SFC
DESCRIPTION: REFUEL CAVITY PURIFICATION INLET CTMT PEN (59-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SGF*AOV24A	26931 / M-7	Standard	GL	AO	0.75	2	B	Active	C	C	C	SGF
DESCRIPTION: STEAM GENERATOR 1 CHEMICAL ADDITION CONTAINMENT ISOLATION (123-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SGF*AOV24B	26931 / L-7	Standard	GL	AO	0.75	2	B	Active	C	C	C	SGF
DESCRIPTION: STEAM GENERATOR 2 CHEMICAL ADDITION CONTAINMENT ISOLATION (123-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SGF*AOV24C	26931 / K-7	Standard	GL	AO	0.75	2	B	Active	C	C	C	SGF
DESCRIPTION: STEAM GENERATOR 3 CHEMICAL ADDITION CONTAINMENT ISOLATION (123-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SGF*AOV24D	26931 / J-7	Standard	GL	AO	0.75	2	B	Active	C	C	C	SGF
DESCRIPTION: STEAM GENERATOR 4 CHEMICAL ADDITION CONTAINMENT ISOLATION (123-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*AV8882	26913-1 / J-4	Standard	GL	AO	0.75	2	B	Passive	C	C	C	HPI
DESCRIPTION: CHG PMP TEST LINE ISOL												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*AV8889A	26913-2 / K-8	Standard	GL	AO	0.75	2	B	Passive	C	C	C	HPI
DESCRIPTION: SIH HOT LEG TEST LINE												

TEST	FREQUENCY	Notes

PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*AV8889C	26913-2 / L-8	Standard	GL	AO	0.75	2	B	Passive	C	C	C	HPI
DESCRIPTION: SIH HOT LEG TEST LINE												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*CV8823	26913-2 / J-8	Standard	GL	AO	0.75	2	A	Passive	C	C	C	HPI
DESCRIPTION: SAFETY INJECTION PUMP DISCHARGE PENETRATION(98-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*CV8824	26913-2 / J-8	Standard	GL	AO	0.75	2	A	Passive	C	C	C	HPI
DESCRIPTION: SAFETY INJECTION PUMP DISCHARGE PENETRATION(97-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*CV8843	26913-1 / I-5	Standard	GL	AO	0.75	2	A	Passive	C	C	C	HPI
DESCRIPTION: CHARGING TO COLD LEGS CTMT PENETRATION(51-INSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*CV8871	26913-1 / E-8	Standard	GL	AO	0.75	2	A	Active	C	C	C	HPI
DESCRIPTION: SAFETY INJECT TEST LINE CTMT PENETRATION(99-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*CV8881	26913-2 / K-4	Standard	GL	AO	0.75	2	A	Active	C	C	C	HPI
DESCRIPTION: SAFETY INJECTION PUMP DISCHARGE TO HOT LEG CTMT PENET(96-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*CV8888	26913-2 / J-4	Standard	GL	AO	0.75	2	A	Active	C	C	C	HPI
DESCRIPTION: ACCUMULATOR FILL LINE CTMT PENETRATION(99-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*CV8964	26913-1 / G-8	Standard	GL	AO	0.75	2	A	Active	O	C	C	HPI
DESCRIPTION: SAFETY INJECT TEST LINE CTMT PENETRATION(99-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8801A	26913-1 / H-3	Standard	GA	MO	4.0	2	A	Active	C	OC	NA	HPI
DESCRIPTION: CHARGING TO COLD LEGS CTMT PENETRATION (51-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-17
LTJ	J	
PIT	III	
STO	CS	ATJ-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8801B	26913-1 / H-4	Standard	GA	MO	4.0	2	A	Active	C	OC	NA	HPI
DESCRIPTION: CHARGING TO COLD LEGS CTMT PENETRATION (51-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-17
LTJ	J	
PIT	III	
STO	CS	ATJ-17

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8802A	26913-2 / H-3	Standard	GA	MO	4.0	2	A	Active	LC	OC	NA	HPI
DESCRIPTION: SAFETY INJECT PUMP DSCHRGE HOT LEG CTMT PENETRATION (96-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-23
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8802B	26913-2 / H-9	Standard	GA	MO	4.0	2	A	Active	LC	OC	NA	HPI
DESCRIPTION: SAFETY INJECT PP DSCHRGE TO HOT LEG CTMT PENETRATION(97-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-23

LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8806	26913-2 / A-6	Standard	GA	MO	8.0	2	B	Active	O	OC	NA	HPI
DESCRIPTION: REFUELING WATER STORAGE TANK TO SAFETY INJECTION PUMP												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-18
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8807A	26913-2 / C-4	Standard	GA	MO	6.0	2	B	Active	C	OC	NA	HPI
DESCRIPTION: LOW PRESS SAFETY INJECTION CHG PMP SUCT X-CONNECT												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8807B	26913-2 / C-5	Standard	GA	MO	6.0	2	B	Active	C	OC	NA	HPI
DESCRIPTION: LOW PRESSURE SAFETY INJECTION CHARGING PUMP SUCTION CROSS CONNECT												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8813	26913-2 / D-6	Standard	GA	MO	3.0	2	A	Active	O	OC	NA	HPI
DESCRIPTION: SAFETY INJECTION PUMP MASTER MINIFLOW ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-19
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8814	26913-2 / E-4	Standard	GA	MO	1.5	2	A	Active	O	OC	NA	HPI
DESCRIPTION: SAFETY INJECT SYS PMP MINIFLOW ISOLATION 3SIH*P1A												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8821A	26913-2 / G-4	Standard	GA	MO	4.0	2	B	Active	O	OC	NA	HPI
DESCRIPTION: A SAFETY INJECTION PUMP TO COLD LEG INJECTION												

TEST	FREQUENCY	Notes
DIAG	III	

FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8821B	26913-2 / G-8	Standard	GA	MO	4.0	2	B	Active	O	OC	NA	HPI
DESCRIPTION: B SAFETY INJECTION PUMP TO COLD LEG INJECTION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8835	26913-2 / H-7	Standard	GA	MO	4.0	2	A	Active	O	OC	NA	HPI
DESCRIPTION: SAFETY INJECT PP DISCHARGE TO COLD LEG CTMT PENETRATION(98-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-20
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8920	26913-2 / E-8	Standard	GA	MO	1.5	2	A	Active	O	OC	NA	HPI
DESCRIPTION: B SAFETY INJECTION PUMP MINIFLOW ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	

FCE	3M	
LT	24M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8923A	26913-2 / B-5	Standard	GA	MO	6.0	2	B	Active	O	OC	NA	HPI
DESCRIPTION: A SAFETY INJECTION PUMP SUCTION ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8923B	26913-2 / B-8	Standard	GA	MO	6.0	2	B	Active	O	OC	NA	HPI
DESCRIPTION: B SAFETY INJECTION PUMP SUCTION ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*MV8924	26913-2 / D-5	Standard	GA	MO	6.0	2	B	Passive	O	O	NA	HPI
DESCRIPTION: LOW PRESSURE SAFETY INJECT CHARGING PUMP SUCTION												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*RV8851	26913-2 / G-7	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	HPI
DESCRIPTION: HI PRESSURE SAFETY INJECTION COMMON HEADER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*RV8853A	26913-2 / G-3	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	HPI
DESCRIPTION: "A" SAFETY INJECTION PUMP DISCHARGE HEADER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*RV8853B	26913-2 / G-9	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	HPI
DESCRIPTION: "B" SAFETY INJECTION PUMP DISCHARGE HEADER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*RV8858	26913-2 / C-6	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	HPI
DESCRIPTION: SAFETY INJECTION SUCTION HEADER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SIH*RV8870	26913-1 / E-8	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	HPI
DESCRIPTION: PENETRATION 99 OVER PRESSURE PROTECTION (99-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*RV8925A	26913-2 / B-2	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	HPI
DESCRIPTION: 3SIH*P1A SUCTION LINE RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*RV8925B	26913-2 / C-10	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	HPI
DESCRIPTION: 3SIH*P1B SUCTION LINE RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V005	26913-1 / J-3	Standard	CK	SA	3.0	1	AC	Active	C	OC	NA	HPI
DESCRIPTION: CHARGING TO COLD LEGS (51-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-56
CVO	CM	TP-02 : CM-56
LTJ	J	

LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V011	26913-2 / B-7	Standard	CK	SA	8.0	2	AC	Active	C	OC	NA	HPI
DESCRIPTION: VCW015-X-2 RWST SPLY TO HPSI PP'S CHK.												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-16
CVO	RR	ATJ-16
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V013	26913-2 / E-2	Standard	CK	SA	4.0	2	C	Active	C	OC	NA	HPI
DESCRIPTION: "A" HPSI PUMP DISCHARGE CHECK .												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-56
CVO	CM	TP-02 : CM-56

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V017	26913-2 / E-10	Standard	CK	SA	4.0	2	C	Active	C	OC	NA	HPI
DESCRIPTION: B HPSI PUMP DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-56
CVO	CM	TP-02 : CM-56

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SIH*V022	26913-2 / K-5	Standard	CK	SA	2.0	2	AC	Active	C	OC	NA	HPI
DESCRIPTION: SAFETY INJECT PP DSCHARG TO COLD LEG CTMT PENETRATION(98-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-18A
CVO	CM	TP-02 : CM-18A
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V024	26913-2 / K-7	Standard	CK	SA	2.0	2	AC	Active	C	OC	NA	HPI
DESCRIPTION: SAFETY INJECT PP DSCHARG TO COLD LEG #3 (98-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-18B
CVO	CM	TP-02 : CM-18B
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V026	26913-2 / K-6	Standard	CK	SA	2.0	2	AC	Active	C	OC	NA	HPI
DESCRIPTION: SAFETY INJECT PP DSCHARG TO COLD LEG CTMT PENETRATION(98-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-18B
CVO	CM	TP-02 : CM-18B
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V028	26913-2 / K-6	Standard	CK	SA	2.0	2	AC	Active	C	OC	NA	HPI

DESCRIPTION: SAFETY INJECT PP DSCHARG TO COLD LEG CTMT PENETRATION(98-INSIDE)

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-18A
CVO	CM	TP-02 : CM-18A
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V081	26913-2 / E-4	Standard	CK	SA	1.5	2	C	Active	C	O	NA	HPI

DESCRIPTION: VCS150-A-2 HPSI A MINIFLOW CHK.

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-21
CVO	CM	TP-02 : CM-21

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V083	26913-2 / E-8	Standard	CK	SA	1.5	2	C	Active	C	O	NA	HPI

DESCRIPTION: VCS150-A-2 HPSI B MINIFLOW CHK.

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-21
CVO	CM	TP-02 : CM-21

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V110	26913-2 / J-10	Standard	CK	SA	2.0	1	AC	Active	C	OC	NA	HPI

DESCRIPTION: SAFETY INJECT PP DSCHRGE TO HOT LEGS CTMT PENETRATION(97-INSIDE)

TEST	FREQUENCY	Notes
CVC	CS	ATJ-01

CVO	RR	ATJ-11
LTJ	J	
LTP	CS	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIH*V112	26913-2 / K-9	Standard	CK	SA	2.0	1	AC	Active	C	OC	NA	HPI
DESCRIPTION: SAFETY INJECT PP DSCHRGE TO HOT LEGS CTMT PENETRATION(97-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-01
CVO	RR	ATJ-11
LTJ	J	
LTP	CS	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8872A	26912-2 / D-11	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: LOW PRESSURE SI TO HIGH PRESSURE SI												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8872B	26912-2 / F-10	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: LOW PRESSURE SI TO HIGH PRESSURE SI												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8872C	26912-2 / I-9	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: LOW PRESSURE SI TO HIGH PRESSURE SI												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8872D	26912-2 / L-9	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: LOW PRESSURE SI TO HIGH PRESSURE SI												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8877A	26912-2 / C-7	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: REACTOR COOLANT CHECK VALVE LEAKAGE TEST												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8877B	26912-2 / F-7	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: REACTOR COOLANT CHECK VALVE LEAKAGE ISOLATION												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SIL*AV8877C	26912-2 / I-7	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: REACTOR COOLANT CHECK VALVE LEAKAGE TEST												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8877D	26912-2 / L-7	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: REACTOR COOLANT CHECK VALVE LEAKAGE TEST												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8878A	26912-2 / B-6	Standard	GL	AO	1.0	2	B	Passive	C	C	C	LPI
DESCRIPTION: SAFETY INJECT ACCUMULATE TANK 1 FILL FROM HIGH PRESS SAFETY INJ												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8878B	26912-2 / E-6	Standard	GL	AO	1.0	2	B	Passive	C	C	C	LPI
DESCRIPTION: SAFETY INJECT ACCUMULATE TANK 2 FILL FROM HIGH PRESS SAFETY INJ												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8878C	26912-2 / H-6	Standard	GL	AO	1.0	2	B	Passive	C	C	C	LPI

DESCRIPTION: SAFETY INJECT ACCUMULATE TANK 3 FILL FROM HIGH PRESS SAFETY INJ

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8878D	26912-2 / K-6	Standard	GL	AO	1.0	2	B	Passive	C	C	C	LPI

DESCRIPTION: SAFETY INJECT ACCUMULATE TANK 4 FILL FROM HIGH PRESS SAFETY INJ

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8879A	26912-2 / C-8	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI

DESCRIPTION: REACTOR COOLANT CHECK VALVE LEAKAGE TEST

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8879B	26912-2 / F-8	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI

DESCRIPTION: REACTOR COOLANT CHECK VALVE LEAKAGE TEST

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8879C	26912-2 / I-8	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI

DESCRIPTION: REACTOR COOLANT CHECK VALVE LEAKAGE TEST

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8879D	26912-2 / L-8	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: REACTOR COOLANT CHECK VALVE LEAKAGE TEST												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8889B	26912-1 / K-7	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: LPSI TEST VALVE												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*AV8889D	26912-1 / K-9	Standard	GL	AO	0.75	2	B	Passive	C	C	C	LPI
DESCRIPTION: LPSI TEST VALVE												

TEST	FREQUENCY	Notes
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*CV8825	26912-1 / L-8	Standard	GL	AO	0.75	2	A	Active	C	C	C	LPI
DESCRIPTION: RHR PUMP DISCHARGE TO HOT LEGS CTMT PENETRATION (95-INSIDE)												

TEST	FREQUENCY	Notes

FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*CV8880	26912-2 / E-2	Standard	GL	AO	1.0	2	A	Active	C	C	C	LPI
DESCRIPTION: NITROGEN TO SAFETY INJECTION ACCUMULATOR CTMT PENETRAT (14-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*CV8890A	26912-1 / N-4	Standard	GL	AO	0.75	2	A	Active	C	C	C	LPI
DESCRIPTION: RHR PUMP DISCHARGE TO COLD LEGS CTMT PENETRATION (93-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*CV8890B	26912-1 / N-3	Standard	GL	AO	0.75	2	A	Active	C	C	C	LPI

DESCRIPTION: RHR PUMP DISCHARGE TO COLD LEGS CTMT PENETRATION (94-INSIDE)

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*CV8968	26912-2 / G-2	Standard	GL	AO	1.0	2	A	Active	C	C	C	LPI

DESCRIPTION: NITROGEN TO SAFETY INJECTION ACCUM CTMT PENETRATION (14-INSIDE)

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*HCV943A	26912-2 / L-2	Standard	GL	SO	1.0	2	B	Active	C	O	NA	LPI

DESCRIPTION: SAFETY INJECTION ACCUMULATOR TANK N2 VENT VALVE

TEST	FREQUENCY	Notes
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*HCV943B	26912-2 / K-2	Standard	GL	SO	1.0	2	B	Active	C	O	NA	LPI

DESCRIPTION: SAFETY INJECTION ACCUMULATOR TKS NITROGEN VENT VALVE

TEST	FREQUENCY	Notes
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8804A	26912-1 / J-3	Standard	GA	MO	8.0	2	B	Active	C	OC	NA	LPI

DESCRIPTION: LOW PRESSURE SAFETY INJECT TO CHARGING PMP SUCTION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-41
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8804B	26912-1 / H-11	Standard	GA	MO	8.0	2	B	Active	C	OC	NA	LPI

DESCRIPTION: LOW PRESSURE SAFETY INJECT TO CHARGING PMP SUCTION

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-41
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8808A	26912-2 / B-7	Standard	GA	MO	10.0	2	B	Active	O	OC	NA	LPI

DESCRIPTION: SAFETY INJECT ACCUMULATOR TANK #1 OUTLET ISOLATION

TEST	FREQUENCY	Notes

DIAG	III	
FCE	CS	ATJ-24
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8808B	26912-2 / E-7	Standard	GA	MO	10.0	2	B	Active	O	OC	NA	LPI
DESCRIPTION: SI ACCUM TANK #2 OUTLET ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-24
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8808C	26912-2 / I-7	Standard	GA	MO	10.0	2	B	Active	O	OC	NA	LPI
DESCRIPTION: SI ACCUM TANK #3 OUTLET ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-24
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8808D	26912-2 / L-7	Standard	GA	MO	10.0	2	B	Active	O	OC	NA	LPI
DESCRIPTION: SI ACCUM TANK #4 OUTLET ISOLATION												

TEST	FREQUENCY	Notes
DIAG	III	

FCE	CS	ATJ-24
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8809A	26912-1 / K-6	Standard	GA	MO	10.0	2	A	Active	O	OC	NA	LPI
DESCRIPTION: RHR PMP DISCHARGE TO COLD LEGS CTMT PENETRATION (93-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-22
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8809B	26912-1 / J-10	Standard	GA	MO	10.0	2	A	Active	O	OC	NA	LPI
DESCRIPTION: RHR PMP DISCHARGE TO COLD LEGS CTMT PENETRATION (94-OUTSIDE)												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-22
LTJ	J	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8812A	26912-1 / C-5	Standard	GA	MO	12.0	2	B	Active	O	OC	NA	LPI
DESCRIPTION: (A) RHR PUMP SUCTION ISOLATION FROM RWST												

TEST	FREQUENCY	Notes

DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8812B	26912-1 / B-8	Standard	GA	MO	12.0	2	B	Active	O	OC	NA	LPI
DESCRIPTION: (B) RHR PUMP SUCTION ISOLATION FROM RWST												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*MV8840	26912-1 / I-8	Standard	GA	MO	8.0	2	A	Passive	C	C	NA	LPI
DESCRIPTION: RHR PMP DISCHARGE TO HOT LEGS CTMT PENETRATION (95-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
PIT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*RV8842	26912-1 / I-8	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	LPI
DESCRIPTION: RHS PUMP COMMON DISCHARGE HEADER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*RV8855A	26912-2 / C-3	Standard	RV	SA	1.0	2	C	Active	C	OC	NA	LPI
DESCRIPTION: ACCUMULATOR TANK RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*RV8855B	26912-2 / F-3	Standard	RV	SA	1.0	2	C	Active	C	OC	NA	LPI
DESCRIPTION: ACCUMULATOR TANK RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*RV8855C	26912-2 / I-3	Standard	RV	SA	1.0	2	C	Active	C	OC	NA	LPI
DESCRIPTION: ACCUMULATOR TANK RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*RV8855D	26912-2 / K-3	Standard	RV	SA	1.0	2	C	Active	C	OC	NA	LPI
DESCRIPTION: ACCUMULATOR TANK RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SIL*RV8856A	26912-1 / K-4	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	LPI
DESCRIPTION: A RHS PUMP DISCHARGE HEADER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*RV8856B	26912-1 / J-10	Standard	RV	SA	0.75	2	C	Active	C	OC	NA	LPI
DESCRIPTION: B RHS PUMP DISCHARGE HEADER RELIEF												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*RV8857	26912-2 / H-1	Standard	RV	SA	1.5	2	C	Active	C	OC	NA	LPI
DESCRIPTION: ACCUMULATOR N2 SUPPLY												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*SV8875A	26912-2 / B-3	Standard	GL	SO	1.0	2	B	Active	C	OC	C	LPI
DESCRIPTION: SAFETY INJECTIONS ACCUM TANK 1 NITROGEN SUPPLY												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*SV8875B	26912-2 / E-3	Standard	GL	SO	1.0	2	B	Active	C	OC	C	LPI
DESCRIPTION: SAFETY INJECTIONS ACCUM TANK 2 NITROGEN SUPPLY												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*SV8875C	26912-2 / I-3	Standard	GL	SO	1.0	2	B	Active	C	OC	C	LPI
DESCRIPTION: SAFETY INJECTIONS ACCUM TANK 3 NITROGEN SUPPLY												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*SV8875D	26912-2 / L-3	Standard	GL	SO	1.0	2	B	Active	C	OC	C	LPI
DESCRIPTION: SAFETY INJECT TANK 4 NITROGEN SUPPLY												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	

STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*SV8875E	26912-2 / B-3	Standard	GL	SO	1.0	2	B	Active	C	OC	C	LPI
DESCRIPTION: SAFETY INJECT ACCUM TANK 1 N2 SUPPLY												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*SV8875F	26912-2 / E-3	Standard	GL	SO	1.0	2	B	Active	C	OC	C	LPI
DESCRIPTION: SAFETY INJECT ACCUM TANK 2 N2 SUPPLY												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*SV8875G	26912-2 / H-3	Standard	GL	SO	1.0	2	B	Active	C	OC	C	LPI
DESCRIPTION: SI ACCUM TANK 3 NITROGEN SUPPLY												

TEST	FREQUENCY	Notes

FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*SV8875H	26912-2 / L-3	Standard	GL	SO	1.0	2	B	Active	C	OC	C	LPI
DESCRIPTION: SAFETY INJECTION ACCUM TANK 4 N2 SUPPLY												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V001	26912-1 / B-2	Standard	BF	MA	24.0	2	B	Active	LO	OC	NA	LPI
DESCRIPTION: SAFETY INJECTION SUPPLY FROM RWST												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V003	26912-1 / C-5	Standard	CK	SA	12.0	2	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHR PUMP 1A RWST SUCTION CHECK												

TEST	FREQUENCY	Notes
CVC	3M	

CVO	RR	ATJ-29
LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V006	26912-1 / M-5	Standard	CK	SA	6.0	2	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHS TO RCS LOOP 1 COLD LEGS (93-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-59
CVO	CM	TP-02 : CM-59
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V007	26912-1 / M-3	Standard	CK	SA	6.0	2	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHS TO RCS LOOP 2 COLD LEG (93-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-59
CVO	CM	TP-02 : CM-59
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V009	26912-1 / B-9	Standard	CK	SA	12.0	2	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHR PUMP 1B RWST SUCTION CHECK												

TEST	FREQUENCY	Notes
CVC	3M	
CVO	RR	ATJ-29

LT	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V012	26912-1 / M-2	Standard	CK	SA	6.0	2	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHS TO RCS LOOP 4 COLD LEG (94-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-59
CVO	CM	TP-02 : CM-59
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V013	26912-1 / M-1	Standard	CK	SA	6.0	2	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHS TO RCS LOOP 3 COLD LEG (94-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-59
CVO	CM	TP-02 : CM-59
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V015	26912-2 / C-8	Standard	CK	SA	10.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: SI ACCUMULATOR A DISCHARGE TO RCS LOOP 1 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-10
CVO	CM	TP-02 : CM-10
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V017	26912-2 / F-8	Standard	CK	SA	10.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: SI ACCUMULATOR B DISCHARGE TO RCS LOOP 2 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-10
CVO	CM	TP-02 : CM-10
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V019	26912-2 / H-8	Standard	CK	SA	10.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: SI ACCUMULATOR C DISCHARGETO RCS LOOP 3 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-10
CVO	CM	TP-02 : CM-10
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V021	26912-2 / K-8	Standard	CK	SA	10.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: SI ACCUMULATOR D DISCHARGE TO RCS LOOP 4 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-10
CVO	CM	TP-02 : CM-10
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SIL*V026	26912-1 / K-8	Standard	CK	SA	8.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHR PMP DISCHARGE TO HOT LEGS (95-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-19
CVO	CM	TP-02 : CM-19
LTJ	J	
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V027	26912-1 / J-7	Standard	CK	SA	2.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: SAFETY INJECT PP DISCHARGE TO HOT LEG CTMT PENETRATION(96-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-01
CVO	RR	ATJ-11
LTJ	J	
LTP	CS	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V028	26912-1 / K-8	Standard	CK	SA	8.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHS/SI TO RCS LOOP 4 HOT LEG (95-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-19
CVO	CM	TP-02 : CM-19
LTJ	J	
LTP	24M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V029	26912-1 / J-9	Standard	CK	SA	2.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: SAFETY INJECT PP DISCHARGE TO HOT LEG CTMT PENETRATION(96-INSIDE)												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-01
CVO	RR	ATJ-11
LTJ	J	
LTP	CS	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V982	26912-1 / J-3	Standard	CK	SA	8.0	2	C	Active	SYS	OC	NA	LPI
DESCRIPTION: RHR TO CVCS CHK.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-11
CVO	CM	TP-02 : CM-11

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V983	26912-1 / H-11	Standard	CK	SA	8.0	2	C	Active	SYS	O	NA	LPI
DESCRIPTION: RHR TO CVCS CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-11
CVO	CM	TP-02 : CM-11

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SIL*V984	26912-2 / M-9	Standard	CK	SA	6.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHS/SI TO RCS LOOP 4 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-01
CVO	CS	ATJ-21
LTP	CS	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V985	26912-2 / J-9	Standard	CK	SA	6.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHS/SI TO RCS LOOP 3 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-01
CVO	CS	ATJ-21
LTP	CS	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V986	26912-2 / H-10	Standard	CK	SA	6.0	1	AC	Active	SYS	OC	NA	LPI
DESCRIPTION: RHS/SI TO RCS LOOP 2 COLD LEG												

TEST	FREQUENCY	Notes
CVC	CS	ATJ-01
CVO	CS	ATJ-21
LTP	CS	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SIL*V987	26912-2 / D-10	Standard	CK	SA	6.0	1	AC	Active	SYS	OC	NA	LPI

DESCRIPTION: RHS/SI TO RCS LOOP 1 COLD LEG

TEST	FREQUENCY	Notes
CVC	CS	ATJ-01
CVO	CS	ATJ-21
LTP	CS	ATJ-01

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSP*CTV7	26955-1 / C-8	Standard	GL	SO	0.75	2	A	Active	C	C	C	PAS

DESCRIPTION: POST ACCIDENT SAMPLE CTMT PENETRATION (115-INSIDE)

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSP*CTV8	26955-1 / C-10	Standard	GL	SO	0.75	2	A	Active	C	C	C	PAS

DESCRIPTION: POST ACCIDENT SAMPLE RETURN CTMT PENETRATION (120 - INSIDE)

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SSP*RV62	26955-1 / D-7	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	PAS
DESCRIPTION: PENETRATION Z115 OVER PRESSURE PROTECTION (115-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSP*RV63	26955-1 / D-9	Standard	RV	SA	0.75	2	AC	Active	C	OC	NA	PAS
DESCRIPTION: PENETRATION Z120 OVER PRESSURE PROTECTION (120-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSP*V013	26955-1 / E-8	Standard	GL	MA	0.75	2	A	Passive	LC	C	NA	PAS
DESCRIPTION: POST ACCIDENT SAMPLE CTMT PENETRATION (115-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSP*V014	26955-1 / E-10	Standard	GL	MA	0.75	2	A	Passive	LC	C	NA	PAS
DESCRIPTION: PAS SAMPLE RTRN CTMT PENETRATION (120-OUTSIDE)												

TEST	FREQUENCY	Notes
LTJ	J	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSP*V160	26955-1 / I-1	Standard	GA	MA	0.75	2	B	Active	LC	O	NA	PAS
DESCRIPTION: HYDROGEN ANALIZER CAB 1A INLET												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSP*V161	26955-1 / I-4	Standard	GA	MA	0.75	2	B	Active	LC	O	NA	PAS
DESCRIPTION: HYDROGEN ANALYZER CAB 1B INLET												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSP*V162	26955-1 / I-4	Standard	GA	MA	0.75	2	B	Active	LC	O	NA	PAS
DESCRIPTION: HYDROGEN ANALIZER OUTLET												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSP*V163	26955-1 / I-4	Standard	GA	MA	0.75	2	B	Active	LC	O	NA	PAS
DESCRIPTION: HYDROGEN ANALYZER CAB 1B OUTLET												

TEST	FREQUENCY	Notes
FCE	24M	Manual Exercise

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SSR*CTV19A	26944-1 / D-2	Standard	GL	SO	0.75	2	B	Active	O	C	C	SSR
DESCRIPTION: STEAM GENERATOR NUMBER ONE BLOWDOWN SAMPLE CTMT ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV19B	26944-1 / F-2	Standard	GL	SO	0.75	2	B	Active	O	C	C	SSR
DESCRIPTION: STEAM GENERATOR NUMBER TWO BLOWDOWN SAMPLING CTMT ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV19C	26944-1 / H-2	Standard	GL	SO	0.75	2	B	Active	O	C	C	SSR
DESCRIPTION: STEAM GENERATOR NUMBER THREE BLOWDOWN SAMPLING ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV19D	26944-1 / J-2	Standard	GL	SO	0.75	2	B	Active	O	C	C	SSR

DESCRIPTION: STEAM GENERATOR NUMBER FOUR BLOWDOWN SAMPLING CTMT ISOLATION

TEST	FREQUENCY	Notes
FSC	3M	TP-03
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV20	26944-2 / J-4	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR

DESCRIPTION: PRESSURIZER VAPOR SPACE SAMPLE CTMT PENETRATION (12A-INSIDE)

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV21	26944-2 / J-5	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR

DESCRIPTION: PRESSURIZER VAPOR SPACE SAMPLE CTMT PENETRATION (12A-OUTSIDE)

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SSR*CTV26	26944-2 / H-4	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR
DESCRIPTION: REACTOR COOL HOT LEGS SAMPLE CONTAINMENT PENETRATION (12B-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV27	26944-2 / H-5	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR
DESCRIPTION: REACTOR COOL HOT LEGS SAMPLE CTMT PENETRATION (12B-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV29	26944-2 / F-4	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR
DESCRIPTION: REACTOR COOLANT COLD LEG SAMPLE CTMT PENETRATION (13A-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV30	26944-2 / F-5	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR
DESCRIPTION: REACTOR COOLANT COLD LEG SAMPLE CTMT PENETRATION (13A-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV32	26944-2 / D-4	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR
DESCRIPTION: SAFETY INJECTION ACCUM SAMPLE CTMT PENETRATION (13D-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CTV33	26944-2 / D-5	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR
DESCRIPTION: SAFETY INJECTION ACCUM SAMPLE CTMT PENETRATION (13B-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	

PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CV8025	26944-2 / B-5	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR
DESCRIPTION: PZR RLF TK (PRT) GAS SAMPLE CONTAINMENT PENETRATION (12C-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SSR*CV8026	26944-2 / B-4	Standard	GL	SO	0.75	2	A	Active	O	C	C	SSR
DESCRIPTION: PZR RLF TK (PRT) GAS SAMPLE CONTAINMENT PENETRATION (12C-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*AOV39A	26933-4 / J-8	Standard	BF	AO	10.0	3	B	Active	C	O	O	SWS
DESCRIPTION: SERVICE WATER A DIESEL GENERATOR HEAT EXCHANGER OUTLET												

TEST	FREQUENCY	Notes

FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*AOV39B	26933-4 / J-3	Standard	BF	AO	10.0	3	B	Active	C	O	O	SWS
DESCRIPTION: SERVICE WATER B DIESEL GENERATOR HEAT EXCHANGER OUTLET												

TEST	FREQUENCY	Notes
FSO	3M	TP-03
PIT	24M	
STO	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV102A	26933-1 / E-9	Standard	BF	MO	30.0	3	B	Active	SYS	OC	NA	SWS
DESCRIPTION: "A" SERVICE WATER PUMP DISCHARGE VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV102B	26933-1 / I-5	Standard	BF	MO	30.0	3	B	Active	SYS	OC	NA	SWS
DESCRIPTION: "B" SERVICE WATER PUMP DISCHARGE VALVE												

TEST	FREQUENCY	Notes
DIAG	III	

FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV102C	26933-1 / D-7	Standard	BF	MO	30.0	3	B	Active	SYS	OC	NA	SWS
DESCRIPTION: "C" SERVICE WATER PUMP DISCHARGE VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV102D	26933-1 / I-2	Standard	BF	MO	30.0	3	B	Active	SYS	OC	NA	SWS
DESCRIPTION: (D) SERVICE WATER DISCHARGE VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV115A	26933-4 / B-8	Standard	GA	MO	2.0	3	B	Active	O	C	NA	SWS
DESCRIPTION: TRAIN (A) CIRCULATING PUMP LUBE WATER SUPPLY												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	

PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV115B	26933-4 / B-3	Standard	GA	MO	2.0	3	B	Active	O	C	NA	SWS
DESCRIPTION: TRAIN (B) CIRCULATED PUMP LUBE WATER SUPPLY --- IN CHLORINE PIT												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV24A	26933-1 / D-10	Standard	GA	MO	3.0	3	B	Active	C	O	NA	SWS
DESCRIPTION: "A" SERVICE WATER PUMP STRAINER BACKWASH VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV24B	26933-1 / G-5	Standard	GA	MO	3.0	3	B	Active	C	O	NA	SWS
DESCRIPTION: "B" SERVICE WATER PUMP STRAINER BACKWASH VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV24C	26933-1 / D-7	Standard	GA	MO	3.0	3	B	Active	C	O	NA	SWS
DESCRIPTION: "C" SERVICE WATER PUMP STRAINER BACKWASH VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV24D	26933-1 / G-3	Standard	GA	MO	3.0	3	B	Active	C	O	NA	SWS
DESCRIPTION: "D" SERVICE WATER PUMP STRAINER BACKWASH VALVE												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV50A	26933-2 / D-8	Standard	BF	MO	30.0	3	B	Active	O	OC	NA	SWS
DESCRIPTION: TR "A" SERVICE WATER SUPPLY REACTOR PLANT COMPONENT COOLING WATER												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-25
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SWP*MOV50B	26933-2 / D-4	Standard	BF	MO	30.0	3	B	Active	O	OC	NA	SWS
DESCRIPTION: TR "B" SERVICE WATER SUPPLY REACTOR PLANT COMPONENT COOLING WATER												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	CS	ATJ-25
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV54A	26933-2 / J-7	Standard	BF	MO	18.0	3	B	Active	C	OC	NA	SWS
DESCRIPTION: "A" CNTMNT RECIRC COOLER INLET												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	6M	ATJ-44
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV54B	26933-2 / J-4	Standard	BF	MO	18.0	3	B	Active	C	OC	NA	SWS
DESCRIPTION: "B" CNTMNT RECIRC COOLER INLET												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	6M	ATJ-44
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV54C	26933-2 / I-9	Standard	BF	MO	18.0	3	B	Active	C	OC	NA	SWS

DESCRIPTION: "C" CNTMNT RECIRC COOLER INLET

TEST	FREQUENCY	Notes
DIAG	III	
FCE	6M	ATJ-44
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV54D	26933-2 / I-2	Standard	BF	MO	18.0	3	B	Active	C	OC	NA	SWS

DESCRIPTION: "D" CNTMNT RECIRC COOLER INLET

TEST	FREQUENCY	Notes
DIAG	III	
FCE	6M	ATJ-44
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV57A	26933-2 / H-7	Standard	BF	MO	18.0	3	B	Active	C	OC	NA	SWS

DESCRIPTION: "A" CONTAINMENT RECIRCULATING COOLER OUTLET

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV57B	26933-2 / H-5	Standard	BF	MO	18.0	3	B	Active	C	OC	NA	SWS

DESCRIPTION: "B" CONTAINMENT RECIRCULATING COOLER OUTLET

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV57C	26933-2 / H-9	Standard	BF	MO	18.0	3	B	Active	C	OC	NA	SWS
DESCRIPTION: "C" CONTAINMENT RECIRCULATING COOLER OUTLET												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV57D	26933-2 / H-3	Standard	BF	MO	18.0	3	B	Active	C	OC	NA	SWS
DESCRIPTION: "D" CONTAINMENT RECIRCULATING COOLER OUTLET												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV71A	26933-2 / D-8	Standard	BF	MO	18.0	3	B	Active	O	C	NA	SWS
DESCRIPTION: "A" SERVICE WATER HDR TURBINE PUMP COMPONENT COOL WTR HEAT EXCH SUPPLY												

TEST	FREQUENCY	Notes

DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*MOV71B	26933-2 / D-7	Standard	BF	MO	18.0	3	B	Active	O	C	NA	SWS
DESCRIPTION: "B" SERVICE WATER HDR TURBINE PUMP COMPONENT COOL WTR HEAT EXCH SUPPLY												

TEST	FREQUENCY	Notes
DIAG	III	
FCE	3M	
PIT	III	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV132A	26933-2 / F-11	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: MCC Rod Control A/C Unit "A" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV132B	26933-2 / F-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: MCC Rod Control A/C Unit "B" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3SWP*RV89A	26933-4 / K-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Control Bldg A/C Unit Water Chiller "A" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV89B	26933-4 / L-2	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Control Bldg A/C Unit Water Chiller "B" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV90A	26933-4 / J-6	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Emergency D/G Air Cooler Heat Exchanger "A" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV90B	26933-4 / J-5	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Emergency D/G Air Cooler Heat Exchanger "B" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV91A	26933-2 / L-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS

DESCRIPTION: CTMT Recirc Pump A/C Unit "A" Relief												
							TEST	FREQUENCY	Notes			
							SP	120M				

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV91B	26933-2 / L-2	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: CTMT Recirc Pump A/C Unit "B" Relief												
							TEST	FREQUENCY	Notes			
							SP	120M				

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV92A	26933-2 / L-6	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Residual Heat Removal Pump A/C Unit "A" Relief												
							TEST	FREQUENCY	Notes			
							SP	120M				

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV92B	26933-2 / L-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Residual Heat Removal Pump A/C Unit "B" Relief												
							TEST	FREQUENCY	Notes			
							SP	120M				

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV93A	26933-2 / L-5	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Safety Injection Pump Cooler "A" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV93B	26933-2 / L-4	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Safety Injection Pump Cooler "B" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV94A	26933-2 / H-6	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Containment Recirculation Cooler "A" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV94B	26933-2 / H-5	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Containment Recirculation Cooler "B" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV94C	26933-2 / H-8	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Containment Recirculation Cooler "C" Relief												

TEST	FREQUENCY	Notes

SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV94D	26933-2 / H-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Containment Recirculation Cooler "D" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV96A	26933-2 / F-9	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Charging Pump Cooler "A" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*RV96B	26933-2 / F-3	Standard	RV	SA	0.75	3	C	Active	C	OC	NA	SWS
DESCRIPTION: Charging Pump Cooler "B" Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V001	26933-1 / H-2	Standard	CK	SA	30.0	3	C	Active	SYS	OC	NA	SWS
DESCRIPTION: SERVICE WATER PUMP D DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-13

CVO	CM	TP-02 : CM-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V003	26933-1 / H-5	Standard	CK	SA	30.0	3	C	Active	SYS	OC	NA	SWS
DESCRIPTION: SERVICE WATER PUMP 1B DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-13
CVO	CM	TP-02 : CM-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V005	26933-1 / D-7	Standard	CK	SA	30.0	3	C	Active	SYS	OC	NA	SWS
DESCRIPTION: SERVICE WATER PUMP 1C DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-13
CVO	CM	TP-02 : CM-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V007	26933-1 / D-9	Standard	CK	SA	30.0	3	C	Active	SYS	OC	NA	SWS
DESCRIPTION: SERVICE WATER PUMP 1A DISCHARGE CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-13
CVO	CM	TP-02 : CM-13

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V104	26933-4 / L-6	Standard	CK	SA	4.0	3	C	Active	SYS	OC	NA	SWS

DESCRIPTION: 3HVK*CHL1A TEMPERATURE RECIRCULATION VALVE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-14
CVO	CM	TP-02 : CM-14

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V109	26933-4 / L-4	Standard	CK	SA	4.0	3	C	Active	SYS	OC	NA	SWS

DESCRIPTION: 3HVK*CHL1B TEMPERATURE RECIRCULATION CHECK VALVE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-14
CVO	CM	TP-02 : CM-14

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V705	26933-2 / J-10	Standard	CK	SA	3.0	3	C	Active	SYS	OC	NA	SWS

DESCRIPTION: "A" SW to HVQ, CCI, CHECK VALVE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-15
CVO	CM	TP-02 : CM-15

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V706	26933-2 / J-1	Standard	CK	SA	3.0	3	C	Active	SYS	OC	NA	SWS

DESCRIPTION: "B" SW to HVQ, CCI, CHECK VALVE

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-15
CVO	CM	TP-02 : CM-15

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V707	26933-2 / D-9	Standard	CK	SA	3.0	3	C	Active	SYS	OC	NA	SWS
DESCRIPTION: MCC & ROD CNTRL AREA BOOSTER PMP P3A SUCT CHECK VLV												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-15
CVO	CM	TP-02 : CM-15

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V708	26933-2 / D-3	Standard	CK	SA	3.0	3	C	Active	SYS	OC	NA	SWS
DESCRIPTION: MCC & ROD CONTROL AREA BOOSTER PUMP P3B SUCTION CHECK												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-15
CVO	CM	TP-02 : CM-15

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V854	26933-2 / E-10	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	SWS
DESCRIPTION: SERVICE WATER BOOSTER PUMP 3A DISCHARGE CHECK.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-24
CVO	CM	TP-02 : CM-24

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3SWP*V867	26933-2 / E-2	Standard	CK	SA	3.0	3	C	Active	SYS	O	NA	SWS
DESCRIPTION: SERVICE WATER BOOSTER PUMP 3B DISCHARGE CHECK.												

TEST	FREQUENCY	Notes

CVC	CM	TP-02 : CM-24
CVO	CM	TP-02 : CM-24

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3VRS*CTV20	26907-1 / L-5	Standard	GL	AO	0.75	2	A	Active	O	C	C	VRS
DESCRIPTION: REACTOR PLANT GAS VENT CTMT PENETRATION (29-INSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3VRS*CTV21	26907-1 / L-7	Standard	GL	AO	0.75	2	A	Active	O	C	C	VRS
DESCRIPTION: REACTOR PLANT GAS VENT CTMT PENETRATION(29-OUTSIDE)												

TEST	FREQUENCY	Notes
FSC	3M	TP-03
LTJ	J	
PIT	24M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3WTC*V837	26933-1 / D-9	Standard	CK	SA	1.5	3	C	Active	SYS	C	NA	CHL
DESCRIPTION: SERVICE WATER A PUMP HEADER HYPOCHLORITE INJ. OUTBOARD CHECK VLV.												

TEST	FREQUENCY	Notes

CVC	CM	TP-02 : CM-47
CVO	CM	TP-02 : CM-47

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3WTC*V840	26933-1 / D-7	Standard	CK	SA	1.5	3	C	Active	SYS	C	NA	CHL
DESCRIPTION: SERVICE WATER C PUMP HEADER HYPOCHLORITE INJ. OUTBOARD CHECK VLV.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-47
CVO	CM	TP-02 : CM-47

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3WTC*V843	26933-1 / H-5	Standard	CK	SA	1.5	3	C	Active	SYS	C	NA	CHL
DESCRIPTION: SERVICE WATER B PUMP HEADER HYPOCHLORITE INJ. OUTBOARD CHECK VLV.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-47
CVO	CM	TP-02 : CM-47

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3WTC*V846	26933-1 / H-2	Standard	CK	SA	1.5	3	C	Active	SYS	C	NA	CHL
DESCRIPTION: SERVICE WATER D PUMP HEADER HYPOCHLORITE INJ. OUTBOARD CHECK VLV.												

TEST	FREQUENCY	Notes
CVC	CM	TP-02 : CM-47
CVO	CM	TP-02 : CM-47

Augmented Valves

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3ASS-AOV102A	26935-2 / D-3	Augmented	GA	AO	8	NC	B	Active	O	C	C	ASS
DESCRIPTION: Auxiliary Steam to Auxiliary Building Isolation												

TEST	FREQUENCY	Notes
FSC	3M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3ASS-AOV102B	26935-2 / D-3	Augmented	GA	AO	8	NC	B	Active	O	C	C	ASS
DESCRIPTION: Auxiliary Steam to Auxiliary Building Isolation												

TEST	FREQUENCY	Notes
FSC	3M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*SOV26A	26916-2 / M-2	Augmented	GL	SO	0.375	NC	B	Active	C	O	NA	DSA
DESCRIPTION: "A" DIESEL START AIR START SOLENOID HEADER 2A												

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*SOV26B	26916-4 / M-2	Augmented	GL	SO	0.375	NC	B	Active	C	O	NA	DSA
DESCRIPTION: "B" DIESEL START AIR START SOLENOID HEADER 2B												

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*SOV27A	26916-2 / M-3	Augmented	GL	SO	0.375	NC	B	Active	C	O	NA	DSA
DESCRIPTION: "A" DIESEL START AIR START SOLENOID HEADER 1A												

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3EGA*SOV27B	26916-4 / M-3	Augmented	GL	SO	0.375	NC	B	Active	C	O	NA	DSA
DESCRIPTION: 'B' DIESEL START AIR START SOLENOID HEADER 1B												

TEST	FREQUENCY	Notes
STO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*RV175A	26939-4 / H-1	Augmented	RV	SA	1	NC	C	Active	SYS	OC	NA	GN2
DESCRIPTION: FWIV Accumulator TK3A Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*RV175B	26939-4 / H-4	Augmented	RV	SA	1	NC	C	Active	SYS	OC	NA	GN2
DESCRIPTION: FWIV Accumulator TK3B Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*RV175C	26939-4 / H-6	Augmented	RV	SA	1	NC	C	Active	SYS	OC	NA	GN2
DESCRIPTION: FWIV Accumulator TK3C Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*RV175D	26939-4 / H-9	Augmented	RV	SA	1	NC	C	Active	SYS	OC	NA	GN2
DESCRIPTION: FWIV Accumulator TK3D Relief												

TEST	FREQUENCY	Notes
SP	120M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V301	26934-4 / F-2	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2
DESCRIPTION: FWIV A BACKUP FILL CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V317	26939-4 / G-2	Augmented	CK	SA		NC	C	Active	SYS	C	NA	GN2
DESCRIPTION: FWIV ACCUMULATOR TK3A CHECK												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V328	26934-4 / H-2	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2
DESCRIPTION: FWIV A PCV178A CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V401	26934-4 / F-4	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2
DESCRIPTION: FWIV B BACKUP FILL CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V417	26939-4 / G-5	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2

DESCRIPTION: FWIV ACCUMULATOR TK3B CHECK

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V428	26934-4 / H-4	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2

DESCRIPTION: FWIV A PCV178B CHECK VALVE

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V501	26934-4 / F-7	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2

DESCRIPTION: FWIV C BACKUP FILL CHECK VALVE

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V517	26939-4 / G-7	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2

DESCRIPTION: FWIV ACCUMULATOR TK3C CHECK

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43

CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V528	26934-4 / H-7	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2
DESCRIPTION: FWIV A PCV178C CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V601	26934-4 / F-9	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2
DESCRIPTION: FWIV D BACKUP FILL CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3GSN*V617	26939-4 / G-9	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2
DESCRIPTION: FWIV ACCUMULATOR TK3D CHECK												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM

3GSN*V628	26934-4 / H-7	Augmented	CK	SA	1	NC	C	Active	SYS	C	NA	GN2
DESCRIPTION: FWIV A PCV178D CHECK VALVE												

TEST	FREQUENCY	Notes
CVC	RR	ATJ-43
CVO	3M	TP-05

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVH-AOV135A	26937-2 / F-2	Augmented	PLG	AO	4	NC	B	Active	O	C	C	HWH
DESCRIPTION: HOT WATER HEATING AUXILIARY BUILDING SUPPLY ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVH-AOV135B	26937-2 / F-2	Augmented	PLG	AO	4	NC	B	Active	O	C	C	HWH
DESCRIPTION: HOT WATER HEATING AUXILIARY BUILDING SUPPLY BACKUP ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVH-AOV136A	26937-2 / I-10	Augmented	PLG	AO	4	NC	B	Active	O	C	C	HWH
DESCRIPTION: HOT WATER HEATING AUXILIARY BUILDING RETURN ISOLATION												

TEST	FREQUENCY	Notes

FSC	3M	
STC	3M	

VALVE NO.	DRAWING NO./ COOR.	PROGRAM	TYPE	ACTUATOR	SIZE	CLASS	CATEGORY	ACT/PASS	NP	SP	FP	SYSTEM
3HVH-AOV136B	26937-2 / I-10	Augmented	PLG	AO	4	NC	B	Active	O	C	C	HWH
DESCRIPTION: HOT WATER HEATING AUXILIARY BUILDING RETURN BACKUP ISOLATION												

TEST	FREQUENCY	Notes
FSC	3M	
STC	3M	

ATTACHMENT 4

Millstone Power Station Unit 3
Inservice Testing Program

Inservice Testing Program Plan for Snubbers, Fourth Testing Interval

MILLSTONE POWER STATION UNIT 3
DOMINION ENERGY NUCLEAR CONNECTICUT, INC.

MILLSTONE UNIT 3

ASME OM CODE

INSERVICE TESTING PROGRAM

INTERVAL 4

SNUBBER
PROGRAM PLAN

Revision 0

Commercial Service Date

April 23, 1986

Dominion Energy Nuclear Connecticut, Inc.

Millstone Power Station Unit 3

Rope Ferry Road

Waterford, CT 06385

9.0 PURPOSE

9.1 The Snubber Program Manual establishes and defines the Snubber Program administrative requirements as detailed in Millstone Power Station Unit 3 (MPS3) Technical Specification 3/4.7.10. The primary purpose of this snubber program is to maintain the operational readiness of all Safety Related and Safety Significant snubbers by periodically examining, testing and monitoring service life to fulfill ASME OM Code requirements as well as applicable plant operating commitments. The examination, testing and service life monitoring (SLM) of Non-Safety Related snubbers will also be addressed in this program. For the purpose of this program, Non-Safety Related snubbers may be referred to as Non-QA snubbers.

10.0 SCOPE

10.1 All snubbers shall be examined, tested and monitored in accordance with the requirements of the ASME OM Code, 2012 Edition, for examination, testing and monitoring of snubbers. The only snubbers excluded from these requirements are those that are installed on Non-Safety Related systems, and then only if their failure or the failure of the system on which they are installed would have no adverse effect on any Safety Related system.

10.2 All snubbers subject to examination, testing and monitoring in accordance with this Program Manual are listed in Attachments 1 through 12 of this document.

10.3 Non-QA snubbers within the Seismic Interface Boundary are labeled within program procedures and documents as "SIB" and are required to be included in this program and treated the same as Safety Related snubbers. These snubbers may also be referred to as "Safety Significant" snubbers.

10.4 Dual Function snubbers that are Pipe Supports/Rupture Restraints are labeled within program procedures and documents as "QA-DF" or "SIB-DF" and are required to be included in this program and treated the same as Safety Related snubbers.

10.5 While Non-Safety Related snubbers are not addressed by ASME OM Code requirements, these snubbers should be examined, tested and monitored to provide reasonable assurance that they will perform their intended functions.

11.0 REFERENCES

11.1 10 CFR 50.55a, Codes and Standards

11.2 ASME OM Code, Operation and Maintenance of Nuclear Power Plants, 2012 Edition

11.3 ASME Code Case OMN-13, Revision 2, "Performance-Based Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants"

11.4 Millstone Power Station Unit 3 Technical Specification 3/4.7.10

11.5 MP-PROC-ENG-SP-31140, Snubber Functional Testing

11.6 MP-PROC-ENG-SP-31138, Snubber Visual Inspection

11.7 MP-PROC-ENG-SP-31155, Snubber Service Life Monitoring

11.8 ER-AA-RRM-100, "ASME Section XI Repair/Replacement Fleet Implementation Requirements"

11.9 SP-ME-533, "Mechanical Snubber Testing Revised Acceptance Criteria for Acceleration Testing"

11.10 Lake Engineering Report No. LEC 292B-R1, Revision 0, dated 01/25/01

11.11 Pacific Scientific Technical Manual Doc. No. 141, DR 1319, Rev. E

11.12 Basic-PSA Design Report DR-3020, Mechanical Shock Arresters Service Life Extension Program

11.13 Lisega letter dated 8/1/2001, "Service Life of LISEGA Hydraulic Snubbers"

12.0 ABBREVIATIONS AND DEFINITIONS

12.1 ABBREVIATIONS

The following standard abbreviations are used by MPS3 and may be found throughout this Program Manual.

ASME	American Society of Mechanical Engineers
CFR	Code of Federal Regulations
MPS3	Millstone Power Station Unit 3
NSS	Nuclear Site Services
SSLR	Snubber Service Life Record

12.2 DEFINITIONS

12.2.1 **Acceptable (Satisfactory) Condition** – This is a snubber condition whereby all visual examination or functional test parameters have been met and the snubber is determined to be capable of performing its design function.

12.2.2 **Accessible Snubbers** - Those snubbers that can be accessed during normal reactor operation.

12.2.3 **Activation** - The change of condition from passive to active, in which the snubber resists rapid displacement of the attached pipe or component.

12.2.4 **Application-Induced Failures** - Failures resulting from environmental conditions or application of the snubber for which it has not been designed or qualified.

12.2.5 **As-Found** - The condition of a snubber as it exists in the system, prior to any preventive maintenance, corrective maintenance, removal from the system or disassembly.

12.2.6 **As-Left** - The condition of a snubber as it exists in the system, after any preventive maintenance, corrective maintenance, or installation in the system.

12.2.7 **Augmented Scope** - Functional testing performed in response to conditions or events such as snubbers in locations where failures occurred previously, locations being tested for Service Life Monitoring, or snubber locations designated by Engineering. A failure of any snubber within the Augmented Scope does not cause an expanded sample to be selected and tested.

12.2.8 **Authorized Nuclear Inspector (ANI)** - An employee of an Authorized Inspection Agency who has been qualified in accordance with NCA-5000 of ASME Section III.

12.2.9 **Authorized Nuclear Inservice Inspector (ANII)** - A person who is employed and has been qualified by an Authorized Inspection Agency to verify that examinations, tests, repairs and replacements are performed in accordance with the rules and requirements of ASME Section XI.

12.2.10 **Augmented Examination Program** - An examination program that addresses additional requirements established by the Owner, Regulatory Authority or other agencies that may not require complete compliance with the requirements of the ASME OM Code.

12.2.11 **Bleed Rate (Release Rate)** - The velocity of snubber movement under a specified load, after activation takes place.

12.2.12 **Cylinder** - The hydraulic pressure vessel that houses the piston, gland, seals and other components that make up the moving part of a hydraulic snubber.

12.2.13 **Dead Band** - The clearance or play (axial movement) in the snubber and end attachment assembly before motion causes activation.

12.2.14 **Defined Test Plan Group (DTPG)** - A population of snubbers from which samples are selected for functional testing

12.2.15 **Degraded Snubber Condition** - For visual examination, this is a condition in which the snubber has one or more visual examination parameters that are unsatisfactory, but the parameter(s) are not serious enough to warrant classifying the overall snubber condition as unsatisfactory (i.e., low fluid level). For functional testing this is a condition in which the snubber still performs the required actions during the test (i.e., activation and bleed), but

the actual values obtained are outside a predetermined set of values within the upper or lower limits of the acceptance ranges or are predicted to trend outside the normal functional capability or performance levels prior to the next functional test campaign. This condition warrants further investigation or corrective actions prior to continued service.

12.2.16 **Design/Manufacturing Induced Failures** - A failure resulting from a potential defect in manufacturing or design that gives cause to suspect other similar snubber failures. This includes failure of any snubber that fails to withstand the environment or application for which it is designed.

12.2.17 **Diagnostic Testing** – Testing to determine the cause or mechanism associated with failure, degradation or performance anomaly of a snubber.

12.2.18 **Drag Force** - The force that will sustain low-velocity snubber movement, without activation, throughout the working range of the snubber stroke.

12.2.19 **End Attachments** - The connections at either end of the snubber (pipe clamps, clevises, etc.) that are used to connect the snubber to piping, piping components or structural members.

12.2.20 **Engineering** – The plant group that provides clear and concise design requirements for installed equipment to ensure that all requirements are met relative to snubbers. Engineering also performs evaluations for degraded, unsatisfactory or inoperable snubbers.

12.2.21 **Examination** – Observing, visual monitoring, or measuring to determine conformance to specified requirements.

12.2.22 **Failure Mode Group (FMG)** – One or more snubbers that have failed a functional test due to design or manufacturing defects, application induced mechanisms, maintenance, repair or installation issues or transient dynamic events and those other snubbers that may be susceptible to similar failure mechanisms.

12.2.23 **Functional Test Campaign** - The series of actions required to complete the testing of DTPG samples per ISTD-5200, ISTD-5300 and ISTD-5400, as applicable.

12.2.24 **Functional Test Failure** – Snubbers failing to meet the requirements of MPS3 procedure SP-31140.

12.2.25 **Hydraulic Snubber** – A velocity sensitive device in which load is transmitted through a hydraulic fluid to a component or system during a sudden application of abnormal forces, but allows free motion during normal thermal movement. Velocity is maintained at or below the design threshold without locking; hence the hydraulic snubber will not become locked in a fixed position by a sustained, uninterrupted force.

12.2.26 **Inaccessible Snubbers** - Those snubbers that cannot be accessed during normal reactor operation due to high radiation, temperature, harsh environment or personnel safety.

12.2.27 **Kip** - a unit of measure that equals 1,000 pounds of force, used primarily by architects and engineers to measure engineering loads.

12.2.28 **Maintenance** – Replacement of parts, adjustments, and similar actions that do not change the design of the snubber.

12.2.29 **Maintenance, Repair and Installation-induced Failures** - Failures that result from damage during maintenance, repair and installation activities of a nature that may cause other snubbers to be suspect.

12.2.30 **Mechanical Snubber** - An acceleration sensitive device in which load is transmitted entirely through mechanical parts to a component or system during a sudden application of abnormal forces, but allows free motion during normal thermal movement. Acceleration is maintained at or below the design threshold without locking; hence the mechanical snubber will not become locked in a fixed position by a sustained, uninterrupted force.

12.2.31 **Modification** – An alteration in the design of a snubber.

12.2.32 **Monitoring** – Continuous or periodic observation or measurement to ascertain the performance or obtain characteristics of a snubber.

12.2.33 **Non-Safety Related – (NSR) Snubbers** - Snubbers that are used in locations where their presence is neither required to perform a specific function in shutting down a reactor to the safe shutdown condition, maintaining the safe shutdown condition, mitigate the consequences of an accident, nor to ensure the integrity of the reactor coolant pressure boundary.

12.2.34 **Normal Operating Conditions** - Plant operating conditions (MODES 1-5), such as reactor startup, operation at power, hot standby, and reactor cool down to cold shutdown.

12.2.35 **Operating Temperatures** - The temperature of the environment surrounding a snubber at its installed plant location during the normal operating condition for which the snubber is required.

12.2.36 **Operational Readiness** - The ability of a snubber to perform its intended function when required.

12.2.37 **Operational Readiness Testing** - Measurement of the required parameters that verify snubber operational readiness.

12.2.38 **Performance Test** – A test to determine whether a snubber meets specified acceptance criteria.

12.2.39 **Plant Operation** – The conditions of startup, operation at power, hot standby and reactor cooldown, as defined by plant Technical Specifications.

12.2.40 **Poppet Valve** - The valve that provides the restriction to flow which results in restraint of axial motion of a hydraulic snubber.

12.2.41 **Predicted Service Life** - The initial service life based on manufacturers recommendation or design review.

12.2.42 **Preservice Examination** – A visual examination performed on a snubber before it is initially placed in service as a new or refurbished unit.

12.2.43 **Preservice Test** – A functional test performed on a snubber before it is initially placed in service as a new or refurbished unit.

12.2.44 **Release Rate** - The rate of the axial snubber movement under a specified load after activation of the snubber takes place.

12.2.45 **Relevant Condition** - A condition observed during a visual examination that requires supplemental examination, corrective measure, repair, replacement, or analytical evaluation.

12.2.46 **Relief Request** - Documents submitted to the NRC requesting permission to deviate from the examination, test or monitoring requirements stipulated in the ASME OM Code. Relief Requests must provide adequate justification and require approval prior to implementation, unless the examination, test or monitoring requirement is clearly impractical or relief has been pre-approved in other regulatory publications (i.e., Regulatory Guides, NUREG's, etc.).

12.2.47 **Repair** - The process of restoring a degraded or unsatisfactory snubber to its current design requirements.

12.2.48 **Replacement Snubber** - Any snubber other than the snubber immediately previously installed at a given location.

12.2.49 **Safety Related (SR) Snubbers** - All snubbers that are used in locations where their presence is either required to perform a specific function in shutting down a reactor to the safe shutdown condition, maintain the safe shutdown condition, mitigate the consequences of an accident, or to ensure the integrity of the reactor coolant pressure boundary.

12.2.50 **Safety Significant (SS) Snubbers** - All snubbers that are not Safety Related, but which it has been determined that their failure would have an adverse effect on any Safety Related system.

12.2.51 **Satisfactory (Acceptable) Snubber Condition** – For visual examination and functional testing, a condition whereby all parameters have been met and the snubber is determined to be capable of performing its design function.

12.2.52 **Service Life** - The period of time a snubber is expected to meet the operational readiness requirements without maintenance.

12.2.53 **Service Life Monitoring** – The identification of service environment conditions and maintenance functions (rebuilds, handling, replacements) that can adversely affect snubber performance.

12.2.54 **Snubber** - A device that provides restraint to a component or system during a sudden application of force, but allows essentially free motion of the component or system during thermal movement.

12.2.55 **Snubber Rebuild/Regrease** – The act of disassembling the snubber, performing a visual examination on the snubber internals, regreasing the snubber (mechanical snubbers only), and reassembling the snubber. Snubber Rebuild/Regrease Activities may also include the replacement of parts. Parts replacement activities may fall under the MPS3 Repair/Replacement Program.

12.2.56 **Snubber Service Life Record** - A restricted access Excel spread sheet used to track a snubbers' service life in a specific location. This spreadsheet is used as a scheduling tool to track work order numbers. The actual QA records for snubber service life are in each individual work order.

12.2.57 **Swing Clearance** - The amount of free space or movement envelope within which the snubber must operate without restriction (binding or damage) from the cold installed position to the hot operating position. (e.g., 4 to 6 degree movement envelope when anchored to the component).

12.2.58 **System Temperature** - System temperature is considered cold for examinations when the steam, gas or liquid system is dry and at ambient temperature. Hot examinations are when the steam, gas or liquid system is charged or at operating pressure and near operating temperature.

12.2.59 **Test Temperature** – The temperature of the environment surrounding the snubber at the time of the operational readiness test.

12.2.60 **Transient Dynamic Event** - An unexpected or potentially damaging occurrence, which was determined to have occurred by reviews of operating data or during the performance of a visual examination.

12.2.61 **Transient Dynamic Event Failure** – The inability of a snubber to perform its intended function due to an unanticipated transient dynamic event.

12.2.62 **Unexplained Failure** – A failure for which the cause has not been determined.

12.2.63 **Unsatisfactory (Unacceptable) Snubber Condition** – A condition in which a snubber does not meet all of the visual examination, functional testing or

evaluation parameter requirements and may not be capable of performing its design function.

12.2.64 **Verify** - To determine that a particular action has been performed in accordance with the rules and requirements of this manual or procedure either by witnessing the action or by reviewing records.

12.2.65 **Visual Examination** - The visual observation for impaired functional ability caused by physical damage, leakage, corrosion, or degradation from environmental or operating conditions, using the VT-3 Visual Examination Method as described in subparagraph IWA-2213 of the ASME Boiler & Pressure Vessel Code, Section XI.

13.0 ADMINISTRATIVE CONTROLS

13.1 Program Administration

13.1.1 The Snubber Program Coordinator is the focal point for implementation, control, and interpretations of this program. The controlling administrative references for this Program Plan are MP-PROC-ENG-SP-31140, Snubber Functional Testing, MP-PROC-ENG-SP-31138, Snubber Visual Inspection and MP-PROC-ENG-SP-31155, Snubber Service Life Monitoring.

13.2 Relief Requests

13.2.1 Relief Request S-001 is associated with the MPS3 Snubber Program.

13.3 Code Cases

13.3.1 Code Case OMN-13 Revision 2, Requirements for Extending Snubber Inservice Visual Examination Interval at LWR Power Plants, is associated with the MPS3 Snubber Program.

13.4 Manual Revisions and Approvals

13.4.1 The Snubber Program Manual shall be revised as necessary following applicable changes to the Inservice Test (IST) Program or following plant modifications that affect the snubber population. If the proposed revision to the program conflicts with licensing commitments, an approved Relief Request must be obtained before the program is revised.

13.4.2 If a change to the program is identified that does not require an immediate program revision, it shall be tracked via the Corrective Action Program (CAP) until it can be incorporated into the program.

13.4.3 All proposed revisions to the MPS3 Snubber Program Plan must be reviewed in accordance with MPS3 procedures to ensure there are no conflicts between the proposed change and licensing commitments.

14.0 PROGRAM DESCRIPTION

14.1 General Program Requirements

14.1.1 All snubbers will be periodically visually examined in the as-found condition to determine operability in accordance with a frequency based on the requirements of Code Case OMN-13, Revision 2.

14.1.2 A representative sample of snubbers from Safety-Related, Safety Significant, and Non-Safety-Related locations will be selected at designated intervals and functionally tested to verify operability.

14.1.3 Service Life Monitoring of all snubbers will be performed to ensure that no snubbers are left in service beyond their recommended or calculated service life without an evaluation being performed.

14.1.4 Maintenance repair/rebuild and replacement frequency of snubbers will be based on manufacturer recommendations of acceptable service life or based on plant specific criteria.

14.1.5 As-left visual examinations will be performed per applicable code and procedural requirements for snubber installations (pre-service) and re-installations (maintenance and/or testing).

14.1.6 The augmented examination and testing scope of non-safety related locations will be determined by the Snubber Program Coordinator.

14.2 Plant Operational Requirements

14.2.1 All Safety Related and Safety Significant snubbers shall be operable as required by MPS3 Technical Specifications or the Technical Requirements Manual for the systems that they restrain.

14.2.2 With one or more snubber(s) considered inoperable during an applicable operating mode, within 72 hours replace or restore the inoperable snubber(s) to operable status AND perform an engineering evaluation per Technical Specification 4.7.10 on the attached component, OR declare the attached system inoperable AND follow the appropriate Technical Specification Action Statement for the affected system.

14.3 Snubber Classification

14.3.1 The snubbers detailed in this program have been selected in accordance with their installed location, related system safety significance and design criteria, and classified as Safety Related, Safety Significant or Non-Safety Related.

14.3.2 Factors considered in snubber categorizations are accessibility during reactor operations, manufacturers design characteristics and operating environment.

14.3.2.1 For visual examinations, all of the Safety Related and Safety Significant snubbers shall be categorized as one population for examination, **OR** they may be categorized as separate accessible and inaccessible populations. The decision of whether to categorize the snubbers as one population or as separate populations may be made before, during or after the completion of the examinations. **IF** combining accessible and inaccessible populations into one population and those populations are currently on different intervals based on previous examination results, **THEN** the shorter interval shall be used for determining subsequent examination interval requirements.

14.4 Snubber and Location Identifiers

14.4.1 A list of individual snubber locations and related systems with information related to the installation location is maintained as attachments to this document.

14.4.2 The plant support ID identifies snubber locations.

14.4.3 Snubber size is related to snubber capacity in Kips. Both mechanical and hydraulic snubbers are related to size.

14.5 General Test Program Requirements:

14.5.1 Tests of snubbers are typically performed during plant outages, but may be performed during normal system operations, as applicable, and shall be conducted by implementing the requirements of this program using approved MPS3 procedures as detailed in References, Section 3.0.

14.5.2 Snubbers shall not be subjected to prior preventive or corrective maintenance (pre-conditioning) specifically for the purpose of meeting the test program requirements.

14.5.2.1 Snubbers that are maintained or repaired by removing or adjusting a snubber part that can affect the results of the applicable tests required by this program shall be tested in accordance with the applicable requirements before returning to service. Additionally, the applicable installation requirements shall be met. The requirements selected shall ensure that the parameters that may have been affected are verified to be acceptable by suitable tests.

14.5.3 Work planning and preparation should begin well in advance of the scheduled work scope to determine any specific issues to be addressed. Initial planning requirements should include the following:

14.5.3.1 Perform a review for previous failed snubber locations that will require the past failed snubber location to be re-tested in the upcoming work scope.

14.5.3.2 Snubbers requiring service life monitoring or seal replacement.

14.5.3.3 Recurring visual examination deficiencies and test failures.

14.5.3.4 Visual as-found examination requirements for the outage or work scope.

14.5.3.5 Preparation of each required test program, snubber listing, each test or examination scope, exam instructions and required paperwork.

14.5.3.6 Functional test samples for each DTPG should be selected in accordance with this program.

14.5.4 All test results shall be documented on the appropriate forms and all copies of test results shall be sent to the Snubber Program Coordinator for applicable evaluations and reviews.

14.6 General Examination Program Requirements:

14.6.1 Examinations of snubbers are typically performed during plant or system outages, but may be performed during normal system operations, as applicable, and shall be conducted by implementing the requirements of this program using approved MPS3 procedures as detailed in References, Section 3.0.

14.6.2 Snubbers shall not be subjected to prior preventive or corrective maintenance (pre-conditioning) specifically for the purpose of meeting the examination program requirements.

14.6.3 All examination results shall be documented on the appropriate forms and all copies of test results shall be sent to the Snubber Program Coordinator for applicable evaluations and reviews.

14.6.4 Transient Event Examinations:

14.6.4.1 If a transient dynamic event (e.g. water hammer, steam hammer, earthquake, etc.) is determined to have occurred, then an examination may be required on all snubbers attached to sections of systems and the system components themselves, that have experienced these unexpected, potentially damaging transients.

14.6.4.2 This examination is independent of the in-service visual examination plan.

14.6.5 In addition to satisfying the visual examination acceptance criteria, freedom-of-motion of snubbers may be required using one of the following:

14.6.5.1 Manually induced snubber movement, or

14.6.5.2 Evaluation of in-place snubber piston settings, or

14.6.5.3 Stroking the snubber through its full range of travel.

14.7 Preservice Program Requirements:

14.7.1 New snubber locations shall only be added, or existing locations permanently removed from the Snubber Program in accordance with the Engineering Change process and applicable implementing procedures.

14.7.2 All new snubber installations shall receive a preservice operability test and visual examination.

14.7.3 Upon completion of removal and subsequent replacement of any snubber for required maintenance or functional test work scope, an as-left preservice visual examination is required to verify correct installation criteria. This visual examination of snubbers will consist of a VT-3 visual examination to satisfy any repair or replacement requirements of the program. All snubber visual exams will include the snubber and associated structural connections.

14.7.4 After installation, the as-left preservice visual examination shall be performed in accordance with the applicable MPS3 visual examination procedures to verify the following:

14.7.4.1 No visible signs of damage or impaired operability exist as a result of storage, handling or installation;

14.7.4.2 Snubber size, location, orientation, position setting and configuration (e.g., attachments and extensions) are in accordance with design drawings and specifications;

14.7.4.3 Adequate swing clearances are provided to allow snubber movement;

14.7.4.4 If applicable, fluid is at the recommended level, and fluid is not leaking from the snubber system; and,

14.7.4.5 Structural connections, such as pins, bearings, fasteners, locknuts, tabs, wires and cotter pins, are installed correctly.

14.7.4.6 If the period between the preservice examination and initial system preoperational test exceeds 6 months, reexamination shall be performed in accordance with the applicable visual and functional testing requirements of this program.

14.7.5 Snubbers that are installed incorrectly or otherwise do not meet the requirements of the above requirements shall be corrected, adjusted, repaired or replaced and reexamined.

14.7.6 The preservice operability functional testing shall be performed on all snubbers prior to installation either at the manufacturer's or owner facility and, as applicable, verify the following:

14.7.6.1 The force that will maintain low velocity displacement (drag force) are within specified limits both in tension and compression.

14.7.6.2 Activation is within the specified range of velocity or acceleration in both tension and compression.

14.7.6.3 Release rate is within the specified range in tension and compression. For units specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be demonstrated.

14.7.7 Snubbers that fail the preservice operability test shall be evaluated for the cause(s) of failure(s). If a design deficiency in the snubber is found, it shall be corrected, modified, repaired, or replacement snubbers shall be retested in accordance with the above requirements.

14.7.8 Snubbers shall be tested at a load sufficient to verify the specified test parameters. Testing at less than rated load must be correlated to test parameters at rated load.

14.8 In-Service Program Requirements

14.8.1 Scope and Frequency of Visual Operability (As Found) Examinations

14.8.1.1 All snubbers within the scope of Subsection ISTD of the ASME OM Code shall be examined and evaluated per Code Case OMN-13, Revision 2 at least once every ten (10) years.

14.8.1.2 The subsequent visual examination frequency for each category or classification group of snubbers shall be determined based on the requirements of Code Case OMN-13, Revision 2.

14.8.1.3 A visual examination of Non-Safety Related snubbers shall be performed according to the schedule determined by the Snubber Program Coordinator.

14.8.2 All snubbers shall be examined in accordance with the requirements of this program prior to conducting any maintenance, stroking, or testing, and prior to removal, for any reason, from their installed location.

14.8.3 Visual Operability (As Found) Examination Requirements

14.8.3.1 The visual as-found examination for snubbers shall be performed before the snubber is disconnected or removed for maintenance or functional testing and extends, as a minimum, from pin to pin. This examination is to determine that there are no visible indications of damage or impaired functional ability due to physical damage, leakage, corrosion, or degradation from environmental exposure or operating conditions.

14.8.3.2 The visual examination and subsequent evaluation should verify that the snubber installation will meet all of the following requirements:

a. Snubbers will be installed such that, when activated, they are capable of restraining abnormal movement.

b. Snubbers will not restrict thermal movement to the extent that unacceptable overstressing could develop in the pipe or other equipment that the snubber is designed to protect or restrain.

c. Snubbers will be free of defects that may be generic to particular designs as may be detected by visual examination.

d. Fluid supply or content shall be observed. Observation that the fluid level is equal to or greater than the minimum amount that is sufficient for actuation at its operating extension is considered to satisfy the provisions of this requirement.

e. Fluid level in hydraulic snubber reservoirs shall be sufficient to ensure that the snubber is acceptable for continued service to the next examination interval.

14.8.3.3 Any unacceptable or degraded snubber condition found during a visual examination shall have an evaluation performed by an individual knowledgeable in snubber operability requirements.

14.8.3.4 Snubbers which appear inoperable as a result of visual examinations, and have been classified as unacceptable may be reclassified as acceptable for the purpose of establishing the next visual examination interval, provided that:

a. An engineering evaluation is performed with the cause of the rejection being clearly established and remedied for that particular snubber and for other snubbers, irrespective of type, on that system that may be generically susceptible; and/or

b. The affected snubber is functionally tested in the as-found condition and determined operable per the testing requirements. For hydraulic snubbers being tested to determine operability due to low fluid, the initial test shall start with the piston at the as-found setting and be performed in the extension (tension) direction. For those snubbers that are common to more than one system, the operability of such snubbers shall be considered in assessing the surveillance schedule for each of the related systems.

14.8.3.5 If an evaluation determines that a visual examination discrepancy does not affect the operability of the snubber, and the condition is a generic

case, a work order (WO) for corrective maintenance may be issued to correct any discrepancies found during the visual examination.

14.8.3.6 Snubber visual examinations will be performed utilizing a VT-3 qualified examiner and will evaluate the snubber and its associated structural connections.

14.8.4 Augmented Visual Examinations:

14.8.4.1 An augmented scope is invoked whenever a visual examination is to be performed as a supplemental scope or is outside of the Code requirements of this program.

14.8.4.2 Snubbers may be selected as a whole population, DTPG, be based on environmental conditions or selected based on preventative maintenance activities and then examined, as applicable, in conjunction with the requirements of the above requirements or as a separate work scope.

14.8.4.3 Any unacceptable or degraded snubber condition reported on the applicable examination or test report sheet, or any noted anomaly identified during the current examination period, shall have an evaluation performed by an individual knowledgeable in snubber operability requirements. This evaluation shall be performed to determine the type and cause of the visual examination discrepancy and effect on the operability of the snubber and related component(s). If the condition is determined as generic, then additional examinations may be required, or if an isolated case, a WO may be issued to correct any discrepancies found. The results of these additional examinations do not impact the visual examination frequency of the Safety Related and Safety Significant examination program.

14.8.5 Scope and Frequency of Snubber Functional Testing:

14.8.5.1 During or before each refueling outage a representative sample of snubbers shall be functionally tested according to the schedule determined by this program to verify in-service operability performance. Snubber testing may begin no earlier than 60 days prior to a scheduled refueling outage.

14.8.5.2 Snubbers shall be tested in their as-found condition, to the fullest extent practicable, with regard to the required test parameters and test methods and removal procedures, which shall not alter the condition of a snubber to the extent that the results do not represent the as-found snubber condition.

14.8.5.3 Steam Generator (SG) and Reactor Coolant Pump (RCP) snubbers at MPS3 are tested by removing the control valves and transporting the valves to a remote testing location. In addition to the testing of the

control valves, the following additional Service Life Monitoring requirements apply for any SG and RCP snubber included in the test sample:

a. Since piston seals, piston rod seals, and cylinder seals are not tested with a load applied to the piston rod, they shall be tested in the cylinder while the snubber body remains installed at the snubber location to ensure seal integrity. If seal integrity is monitored by cylinder pressurization, pressures less than the snubber would be subject to at snubber rated load may be used. Minimum test pressure shall be specified by the Snubber Program Coordinator.

b. The particulate, viscosity, and moisture content of one or more samples of hydraulic fluid from the main cylinder of the snubber shall be monitored. In lieu of obtaining fluid samples from each snubber in the test sample, this may be accomplished using snubbers of the same design in a similar or more severe environment.

14.8.5.4 Bench-type testing of pipe snubbers is performed by securing the snubber at both ends and, as such, requires the complete removal of the snubber from a plant location.

14.8.5.5 When the as-found visual examination for operability or visual examination is to be performed during a refueling outage, it shall be performed before the snubber is removed for functional testing.

14.8.5.6 A representative sample from each 10% sample plan DTPG is selected that, as practicable, shall include representation from the DTPG based on the significant features (i.e., the various designs, configurations, operating environments, sizes, and capacities) and based on the ratio of the number of snubbers of each significant feature, to the total number of snubbers in the DTPG. Selection of the representative snubbers shall be random.

14.8.5.7 The content of the initial sample plan shall be established prior to an outage. Changes can be made to this content before or after testing begins, however, the representation of the sample based on the significant features (i.e., the various designs, configurations, operating environments, sizes, and capacities) shall not be changed. If the content of the sample is changed after testing begins, the Snubber Program Coordinator shall document a justification for each snubber substitution.

14.8.5.8 The program identifies, for testing as an augmented scope, locations that had failed snubbers during the previous functional test cycle. These shall be re-tested, unless the cause of the failure has been clearly established and corrected. Testing and failure of these

augmented functional tests does not cause an increase in the initial sample size as these additional tests are outside of the surveillance requirements and identified as an augmented scope.

14.8.5.9 A DTPG for Non-Safety Related snubbers may be tested to as part of a good engineering practice to provide assurance of structural reliability that has not been satisfied by the visual operability examination. Any functional scope for Non-Safety Related snubbers shall be independent of the requirements for Safety Related snubbers and the results shall not affect the Safety Related program. Instead, results shall be evaluated on an individual basis and any corrective actions taken shall be applied, as applicable, only to this separate scope.

14.8.5.10 For each snubber found to be unacceptable after operability testing, an additional 5% sample lot of snubbers is required to be tested and the applicable corrective action taken.

14.8.5.11 Replacement snubbers and snubbers that have repairs which might affect the functional test sample criteria shall be tested to meet the functional test requirements before installation. Spare snubbers shall have been functionally tested within the last 12 months prior to installation.

14.8.5.12 All inservice test data acquired since implementation of the requirements of Code Case OMN-13 shall be evaluated for indications of snubber degradation or other anomalies. This includes a review of test traces, where available. The results of this evaluation shall be used to identify snubbers that are subject to progressive degradation and to identify severe operating environments not previously identified.

14.8.6 Functional Testing Sample Plans:

14.8.6.1 Testing will be conducted for each defined test plan group (DTPG) defined in the tables below. Each DTPG will be tested using the 10% sample plan as described in ISTD-5300 of the ASME OM Code.

a. The representative samples selected from each DTPG for the initial functional test will be selected from the snubbers of each group and reviewed before beginning the testing. This review will ensure, as far as practical, that they are representative of the various configurations, operating environments, range of size, and capacity of snubbers of each DTPG.

b. All snubbers subject to the functional test requirements shall be grouped according to the DTPGs defined in the table below:

Snubber DTPG's

DTPG	Group
ATTACHMENT 1 DTPG A1	PSA-1/4 and PSA-1/2 mechanical snubbers located in the Containment Structure (CS) and the Main Steam Valve Building (MSVB)
ATTACHMENT 2 DTPG A2	PSA-1/4 and PSA-1/2 mechanical snubbers located in the Auxiliary Building (AB) and Engineered Safety Features Building (ESF)
ATTACHMENT 3 DTPG B1	PSA-1 mechanical snubbers located in the CS
ATTACHMENT 4 DTPG B2	PSA-1 mechanical snubbers located in the MSVB
ATTACHMENT 5 DTPG B3	PSA-1 mechanical snubbers located in the AB and ESF
ATTACHMENT 6 DTPG B4	PSA-3 mechanical snubbers located in the MSVB
ATTACHMENT 7 DTPG B5	PSA-3 mechanical snubbers located in the CS
ATTACHMENT 8 DTPG B6	PSA-3 mechanical snubbers located in the AB, ESF, and Emergency Generator Enclosure (EGE)
ATTACHMENT 9 DTPG B7	PSA-10 mechanical snubbers located in the CS, AB, ESF, MSVB, EGE, and Turbine Building (TB)
ATTACHMENT 10 DTPG C	PSA-35 and PSA-100 mechanical snubbers located in the CS, MSVB, AB, and TB

ATTACHMENT 11 DTPG D	Paul Munroe hydraulic snubbers located in the CS attached to the steam generators and reactor coolant pumps
ATTACHMENT 12 DTPG E	All snubbers installed in Non-Safety Related locations where their failures would not have an adverse affect on any Safety Related system or component

14.8.6.2 Snubbers that do not meet the acceptance criteria for functional testing shall be evaluated to determine the cause of the failure and unacceptable snubber(s) shall be categorized into test failure mode groups (FMG) to determine corrective actions.

14.8.6.3 For each snubber from an initial DTPG sample that does not meet the functional test acceptance criteria, an additional sample of at least 5% of the DTPG population shall be tested. For each snubber that fails in an additional 5% sample group, a new 5% sample group shall be selected and functionally tested. Testing shall continue until the mathematical formula $N \geq 0.1n + C(0.1n/2)$ is satisfied where C = the total number of unacceptable snubbers found in the DTPG (excluding those counted for FMG tests), N = the total number of snubbers tested that were selected from the DTPG and n = the number of snubbers in the DTPG.

As far as practical, the additional samples should include:

a. Snubbers of the same size and manufacturer's design.

b. Snubbers from the same system, including those snubbers immediately adjacent to the unacceptable snubbers.

c. Other piping systems having the same operating conditions; such as temperature, humidity, vibration and radiation.

d. Snubbers that are previously untested.

14.8.6.4 If additional sampling is required due to failure of only one type and size of snubber, the functional testing results shall be reviewed at the time to determine if additional samples should be limited to the type of snubber that has failed the functional testing.

14.8.7 Functional Operability Test Acceptance Criteria:

14.8.7.1 The snubber functional test shall verify, as applicable, that:

a. The force that will maintain low velocity displacement (drag force) is within specified limits both in tension and compression.

b. Activation is within the specified range of velocity or acceleration in both tension and compression.

c. Release rate is within the specified range in tension and compression. For units specifically required not to displace under continuous load, the ability of the snubber to withstand load without displacement shall be demonstrated.

14.8.7.2 Snubbers shall be tested at a load sufficient to verify the specified test parameters. Testing at less than rated load must be correlated to test parameters at rated load.

14.8.7.3 Snubbers that fail the functional test acceptance criteria shall be repaired or replaced. Snubbers that have repairs shall be tested to meet the functional test criteria before installation and meet the requirements of the MPS3 Repair and Replacement Program.

14.8.8 Functional Test Failure Analysis

14.8.8.1 Snubbers that do not meet the acceptance criteria for functional testing shall be evaluated to determine the cause of the failure and unacceptable snubber(s) shall be categorized into test failure mode groups (FMG) to determine corrective actions. These FMGs will be used, as applicable, in selecting snubbers to be tested in an effort to determine the acceptability of other snubbers, which may be subject to the same failure mode.

a. Hydraulic snubbers typically fail due to loss of fluid, which results in no restraining action. This is referred to as failing soft. Snubbers may also fail due to loss of bleed capacity. This will only be evident if the snubber has been activated.

b. Sometimes the cause of an unsatisfactory snubber condition can be determined by external examination, such as the existence of paint on moving parts. Visual examinations and measurements, coupled with the knowledge of snubber operational details, are usually sufficient to determine the cause of the failure.

c. However, in some cases, the snubber will require disassembly to determine the cause of failure and whether a part failed from an overload or fatigue, in tension or compression, etc. Additional investigation is usually required to determine what caused this defect to develop. Such causes may be improper maintenance, improper design or operation under excessive vibration from the attached component.

14.8.8.2 For the snubbers that do not meet the acceptance criteria, an engineering evaluation shall also be performed on the component or system to which the unsatisfactory snubbers are attached. The purpose of this engineering evaluation is to determine if the components to which the unsatisfactory snubbers are attached were adversely affected by the failure of the snubbers in order to ensure that the component or system remains capable of meeting the designed service.

14.8.9 Failure Mode Groups.

14.8.9.1 After determination by an engineering evaluation that a snubber is unacceptable, it may be categorized into an examination or testing FMG. An FMG shall include all unacceptable snubbers that have a given failure and all other snubbers evaluated to be subject to the same failure. The FMGs shall be separate and distinct for each test scope.

When it is decided that FMGs will be used, the following FMGs should be considered:

a. Design or manufacturing

b. Application Induced

c. Maintenance, Repair or Installation

d. Transient Dynamic Event

Other FMGs may be considered, if warranted.

14.8.9.2 Once an FMG has been established, any snubber(s) identified in that FMG may be separated for continued testing from the original work scope. The new defined and independent FMG will remain until the applicable corrective action has been completed.

14.8.9.3 In the event a snubber(s) is included in more than one FMG, it shall be counted in each, and subject to the schedule, subsequent schedule and corrective action of each test FMG.

14.8.9.4 For a Design or Manufacturing and Application Induced FMG, the following corrective action shall apply:

a. All snubbers in the FMG shall be replaced or modified. The replacement or modified snubbers shall be reclassified as acceptable and the applicable reexamination performed; OR

b. All unacceptable snubbers in the Application-Induced FMG shall be replaced or repaired to an acceptable condition and the environment or applications shall be made compatible with the design parameters for all snubbers within this FMG.

No additional testing is required provided the above corrective actions have been taken.

c. Design or Manufacturing; Maintenance, Repair or Installation; and Application-Induced Failure Mode. When the corrective actions of 6.8.9.4 are not applicable, or are not taken, the following applies:

a Tests in the FMG shall be based both on the number of unacceptable snubbers found in the DTPG and determined by the failure evaluation to be appropriate for establishing the FMG, and on the number of unacceptable snubbers subsequently found in the FMG.

b Testing shall continue until the mathematical formula $N_F \geq C_F(0.1n/2)$ is satisfied where C_F = the total number of unacceptable snubbers in the FMG, plus those found in the DTPG and used to establish the FMG, N_F = all snubbers selected and tested from the FMG after the FMG was established from the DTPG and n = the number of snubbers in the DTPG, or all the snubbers in the FMG have been tested.

14.8.9.5 Transient Dynamic Event FMG Corrective Action. No additional tests of the snubbers in this group are required. However, the operational readiness of all snubbers in the FMG shall be evaluated by stroking or testing. All operationally ready snubbers in this FMG shall be eligible for selection and testing for other appropriate FMGs and the DTPG.

14.8.9.6 Deletions of Unacceptable Snubbers. Snubbers may be deleted based on analysis of the affected piping system. When an unacceptable snubber is deleted, the deleted snubber shall be considered in its respective examination population, examination category, or FMG for determining the corrective action.

14.8.10Snubber Service Life Monitoring Program

14.8.10.1 The object of service life monitoring is to identify service environment conditions and maintenance functions (rebuilds, handling, replacements, etc.) that can adversely affect snubber performance. Service life varies with manufacturer recommendations, design limits, actual conditions and materials, and should be adjusted based on plant experience and trending to ensure that the snubber(s) periodically undergo a performance evaluation.

14.8.10.2 Initial snubber service life shall be predicted based on manufacturer's recommendation or design review.

14.8.10.3 Service life shall be evaluated at least once each fuel cycle, and increased or decreased, if warranted. Evaluation shall be based upon technical data from representative snubbers that have been in service in the plant, or other information related to service life. If the evaluation indicates that service life will be exceeded before the next scheduled system or plant outage, one of the following actions shall be taken:

a. the snubber shall be replaced with a snubber for which the service life will not be exceeded before the next scheduled system or plant outage

b. technical justification shall be documented for extending the service life to or beyond the next scheduled system or plant outage

c. the snubber shall be reconditioned such that its service life will be extended to or beyond the next scheduled system or plant outage

14.8.10.4 The maximum expected service life for various seals, springs, and other critical parts shall be extended or shortened based on monitored test results and failure history. Critical parts shall be replaced so that the maximum service life will not be exceeded during a period when the snubber is required to be operable.

14.8.10.5 The performance of snubbers is indicated by the results of functional tests. Tracking and trending snubber performance may be required relating to snubbers installed in the same location and for snubbers that failed previous outage tests, due to location variables or unknown causes. When the same snubber has been tested several times, its test results may be reviewed to determine whether a trend is developing or if the snubber test values are degrading.

a. Activation, bleed rate and drag are parameters available for trending hydraulic snubber performance. The results of the next functional test can be compared to the last test to determine if a drift of parameter values has occurred. If the drift is within acceptance limits, the snubber may be determined to be degraded or acceptable for continued use without the need for rebuild or replacement.

b. One of the primary problems associated with mechanical snubbers is the drying or hardening of its grease. This condition occurs over time and can be exasperated by environmental conditions such as high temperature. Additionally, mechanical snubbers are susceptible to high vibration conditions. Snubbers installed in locations where high cycle vibration is present are more prone to failures and to wear on the internal parts. Snubbers located in these locations will need to be tested on a more frequent basis.

c. The static and dynamic seals, moving parts and fluid in a hydraulic snubber are subject to wear or other degradation. The piston, piston rod, cylinder and glands are also subject to wear. These and other parts should be examined carefully each time seals are replaced or each time replacements are made to prevent leakage or other conditions of in-operability before the next snubber rebuild.

d. Hydraulic fluid, if reused, should be checked at rebuild time for moisture content and particulate to determine whether the fluid should be filtered to bring it back into specification or disposed.

14.8.10.6 A record of the service life of each snubber in the program shall be maintained. The snubber service life record shall include manufacturer, model, serial number, present plant location and installation service life end date for each applicable snubber. When snubbers are rebuilt or overhauled, the service life shall be updated which will provide future statistical bases for consideration of snubber service life.

14.8.10.7 Service Life and Snubber Replacement

a. The initial service life for Paul-Munroe hydraulic snubbers at MPS3 will be established at 141 months (11.75 years) for upper steam generator snubbers and 200 months (16.7 years) for lower steam generator and reactor coolant pump snubbers, based on the required seal replacement. As a snubbers seals are replaced, the indicated service life will be reestablished to reflect a new cycle as appropriate.

b. The initial service life for new PSA mechanical snubbers at MPS3 is forty (40) years based on the manufacturers design life with no repetitive maintenance required. Test data from snubber testing and failure analysis reports shall be periodically reviewed to identify degradation or trends that my require adjusting the service life.

14.8.10.8 Causes for any snubber failures (regardless of the means or time of discovery) shall be determined, documented, and considered in establishing or reestablishing service life.

14.8.11 Maintenance

14.8.11.1 Any maintenance function which could affect the operability of a snubber shall be conducted using MPS3 approved Maintenance Procedures.

14.8.12 Spare Snubbers

14.8.12.1 All snubbers not installed in an active location within the plant are considered spares. Spares shall be rebuilt using safety related parts and functionally tested in accordance with approved procedures and tagged with the date and results of the functional test.

14.8.12.2 Spares may be used in all locations where a snubber of the same manufacturer bore and stroke size, requires a change out.

14.8.12.3 Storage should be in designated areas that provide protection from exposure to airborne and windblown contaminants. When being moved from storage, they should be protected from damage and the possibility of moisture, liquids or other activities that might result in foreign materials entering or damaging the snubber. Spare snubbers shall have been functionally tested within the last 12 months prior to installation.

14.8.13Replacement or Modified Snubbers

14.8.13.1 Snubbers shall not be adjusted, maintained, or repaired before an examination or test specifically to meet the examination or test requirements.

14.8.13.2 Snubbers that are maintained or repaired by removing or adjusting a snubber part that can affect the results of tests shall be examined and tested with the applicable procedures before returning to service. The requirements selected shall ensure that the parameters that may have been affected are verified to be acceptable.

14.8.13.3 Replacement or modified snubber(s) shall have a proven suitability for the application and environment and shall be examined and tested in accordance with written procedures and verified to be acceptable.

15.0 EQUIPMENT AND PERSONNEL REQUIREMENTS

15.1 Instrumentation and Test Equipment

15.1.1 Functional Test Equipment

15.1.1.1 Instrumentation and test equipment used in the examination and testing of snubbers shall be calibrated and have the range and accuracy necessary to demonstrate conformance to the test requirements as stated in the applicable testing procedures.

15.1.1.2 The test machine presently used at MPS3 is the Barker Diacon Test Machine. An equivalent approved testing machine is acceptable for the functional preservice and inservice tests provided that it is capable of testing to verify that:

a. Free movement force will initiate motion of the snubber rod in both tension and compression during low velocity displacements, and

b. Activation is achieved within the specified range of velocity or acceleration in both tension and compression, and

c. Snubber bleed or release rate is within the specified range in compression or tension.

15.2 Training and Personnel Qualifications

15.2.1 Personnel who are required to witness, perform, and/or evaluate test results will be trained and certified, as applicable, in accordance with approved site procedures.

15.2.2 Craft and maintenance personnel involved with snubber related work are to be qualified in accordance with the installation and removal procedures. In addition, personnel performing the functional testing of the snubbers must be qualified on and with the operation of the machines, and have a working knowledge of snubber design and test parameters.

15.2.3 Personnel performing snubber evaluations shall be knowledgeable in snubber operability requirements, design, test parameters, failure and degradation mechanisms and maintain a knowledge of current industry events and trends.

15.2.4 Personnel performing visual examinations must be VT-3 qualified.

16.0 ISOMETRIC, LOCATION AND COMPONENT DRAWINGS

16.1 Snubber drawings are available for each snubber location. These drawings are to be used in locating each examination location. Additionally, these drawings provide installation and inspection information for each snubber location.

ATTACHMENT 1

DPTG "A1" (PSA-1/4 and PSA-1/2 Mechanical Snubbers in CS and MSVB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3BDG1PSSP0406	CS	BDG	Basic-PSA	PSA-1/2	
3BDG1PSSP0407	CS	BDG	Basic-PSA	PSA-1/2	
3BDG1PSSP0414	CS	BDG	Basic-PSA	PSA-1/2	
3BDG1PSSP0417	CS	BDG	Basic-PSA	PSA-1/2	
3BDG1PSSP0429	CS	BDG	Basic-PSA	PSA-1/2	
3BDG1PSSP0430	CS	BDG	Basic-PSA	PSA-1/2	
3BDG1PSSP0433	CS	BDG	Basic-PSA	PSA-1/2	
3BDG1PSSP0487	CS	BDG	Basic-PSA	PSA-1/4	SIB
3BDG1PSSP0489	CS	BDG	Basic-PSA	PSA-1/4	SIB
3BDG1PSSP0491	CS	BDG	Basic-PSA	PSA-1/4	SIB
3BDG1PSSP0492	CS	BDG	Basic-PSA	PSA-1/4	SIB
3BDG1PSSP0495	CS	BDG	Basic-PSA	PSA-1/4	SIB
3BDG1PSSP0496	CS	BDG	Basic-PSA	PSA-1/4	SIB
3CHS1PSSP0605	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP0608	CS	CHG	Basic-PSA	PSA-1/2	
3CHS1PSSP0707	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP0718	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP0721	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP0726	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP0727	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP0728	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP0740	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP0744	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP0992	CS	CHG	Basic-PSA	PSA-1/2	
3CHS1PSSP0993	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP1033	CS	CHG	Basic-PSA	PSA-1/4	
3CHS1PSSP1034	CS	CHG	Basic-PSA	PSA-1/2	
3CHS1PSSP1036	CS	CHG	Basic-PSA	PSA-1/2	
3MSS1PSSP0456	CS	STG	Basic-PSA	PSA-1/2	
3MSS1PSSP0459	CS	STG	Basic-PSA	PSA-1/2	
3MSS1PSSP0460	CS	STG	Basic-PSA	PSA-1/2	
3MSS1PSSP0465	CS	STG	Basic-PSA	PSA-1/2	
3MSS1PSSP0466	CS	STG	Basic-PSA	PSA-1/2	
3MSS1PSSP0467	CS	STG	Basic-PSA	PSA-1/2	

DPTG "A1" (PSA-1/4 and PSA-1/2 Mechanical Snubbers in CS and MSVB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3MSS1PSSP0471	CS	STG	Basic-PSA	PSA-1/2	
3MSS1PSSP0472	CS	STG	Basic-PSA	PSA-1/4	
3RCS1IPSSP1520	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0027	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0039	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0044	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0046	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0106	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0110	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0111	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0113	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0114	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0118	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0119	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0120	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0121	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0122	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0126	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0128	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0129	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0130	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0132	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0133	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0137	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0138	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0144	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0145	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0149	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0152	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0153	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0156	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0162	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0163	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0164	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0167	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0168	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0639	CS	RCS	Basic-PSA	PSA-1/2	

DPTG "A1" (PSA-1/4 and PSA-1/2 Mechanical Snubbers in CS and MSVB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RCS1PSSP0729	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0807	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0913	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0915	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0916	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0917	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0918	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0920	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0921	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0922	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0924	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0925	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0926	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0928	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0929	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0930	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0931	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0932	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0937	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0938	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0939	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0941	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0943	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0945	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0946	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0959	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0962	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0963	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0965	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0966	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0967	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0968	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0969	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0970	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0971	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0972	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0973	CS	RCS	Basic-PSA	PSA-1/4	

DPTG "A1" (PSA-1/4 and PSA-1/2 Mechanical Snubbers in CS and MSVB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RCS1PSSP0975	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0976	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0977	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0978	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0979	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1PSSP0980	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP0981	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1018	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1019	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1021	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1022	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1023	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1037	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1038	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1039	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1040	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1041	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1045	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1063	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1113	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1114	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1116	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1119	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1231	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1233	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1235	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1PSSP1237	CS	RCS	Basic-PSA	PSA-1/4	
3RCS1VPSSP1517	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1VPSSP1518	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1VPSSP1522	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1VPSSP1523	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1VPSSP1524	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1VPSSP1525	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1VPSSP1526	CS	RCS	Basic-PSA	PSA-1/2	
3RCS1VPSSP1527	CS	RCS	Basic-PSA	PSA-1/2	
3SIH1PSSP0142	CS	HPI	Basic-PSA	PSA-1/4	
3SIH1PSSP0143	CS	HPI	Basic-PSA	PSA-1/2	

DPTG "A1" (PSA-1/4 and PSA-1/2 Mechanical Snubbers in CS and MSVB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3SIH1PSSP0157	CS	HPI	Basic-PSA	PSA-1/4	
3SIH1PSSP0158	CS	HPI	Basic-PSA	PSA-1/2	
3SIH1PSSP0159	CS	HPI	Basic-PSA	PSA-1/2	
3SIH1PSSP0450	CS	HPI	Basic-PSA	PSA-1/2	
3SIH1PSSP1029	CS	HPI	Basic-PSA	PSA-1/2	
3SIH1PSSP1030	CS	HPI	Basic-PSA	PSA-1/2	
3SIH1PSSP1044	CS	HPI	Basic-PSA	PSA-1/2	
3SIH1PSSP1102	CS	HPI	Basic-PSA	PSA-1/4	
3SIH1PSSP1110	CS	HPI	Basic-PSA	PSA-1/4	
3SIL1PSSP0450	CS	LPI	Basic-PSA	PSA-1/2	
3SIL1PSSP1028	CS	LPI	Basic-PSA	PSA-1/4	
CP302760H004	MSVB	STG	Basic-PSA	PSA-1/4	SIB
CP302760H006	MSVB	STG	Basic-PSA	PSA-1/4	SIB
CP302760H010	MSVB	STG	Basic-PSA	PSA-1/4	SIB
CP302761H004	MSVB	STG	Basic-PSA	PSA-1/4	SIB
CP302761H005	MSVB	STG	Basic-PSA	PSA-1/4	SIB
CP302761H009	MSVB	STG	Basic-PSA	PSA-1/4	SIB
CP302762H001	MSVB	STG	Basic-PSA	PSA-1/4	
CP302762H012	MSVB	STG	Basic-PSA	PSA-1/4	
CP302763H004	MSVB	STG	Basic-PSA	PSA-1/4	SIB
CP302763H008	MSVB	STG	Basic-PSA	PSA-1/4	SIB
CP302763H012	MSVB	STG	Basic-PSA	PSA-1/4	SIB
CP408051H003	CS	BDG	Basic-PSA	PSA-1/4	SIB
CP408051H006	CS	BDG	Basic-PSA	PSA-1/4	SIB
CP408052H003	CS	BDG	Basic-PSA	PSA-1/4	SIB
CP408052H006	CS	BDG	Basic-PSA	PSA-1/4	SIB
CP408053H003	CS	BDG	Basic-PSA	PSA-1/4	SIB
CP408054H001	CS	BDG	Basic-PSA	PSA-1/4	SIB
CP408054H003	CS	BDG	Basic-PSA	PSA-1/4	SIB
CP408055H002	CS	BDG	Basic-PSA	PSA-1/4	
CP408056H001	CS	BDG	Basic-PSA	PSA-1/4	
CP408057H001	CS	BDG	Basic-PSA	PSA-1/4	
CP408057H002	CS	BDG	Basic-PSA	PSA-1/4	
CP408058H004	CS	BDG	Basic-PSA	PSA-1/4	
CP409004H006	CS	RCS	Basic-PSA	PSA-1/4	
CP409004H010	CS	RCS	Basic-PSA	PSA-1/4	
CP409005H010	CS	RCS	Basic-PSA	PSA-1/4	SIB

DPTG "A1" (PSA-1/4 and PSA-1/2 Mechanical Snubbers in CS and MSVB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
CP409005H012	CS	RCS	Basic-PSA	PSA-1/4	SIB
CP409005H013	CS	RCS	Basic-PSA	PSA-1/2	
CP409005H015	CS	RCS	Basic-PSA	PSA-1/4	
CP409701H009	CS	RCS	Basic-PSA	PSA-1/4	
CP409701H016	CS	RCS	Basic-PSA	PSA-1/4	

NOTE: Non-QA Snubbers which constitute the Seismic Interface Boundary are labeled as "SIB" and are required to be included in the Surveillance Program as required by Specification SP-ME-570.

ATTACHMENT 2

DPTG "A2" (PSA-1/4 and PSA-1/2 Mechanical Snubbers in AB and ESF)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3CHS2PSSP0410	AB	CHG	Basic-PSA	PSA-1/2	
3CHS2PSSP0411	AB	CHG	Basic-PSA	PSA-1/4	
3CHS2PSSP0412	AB	CHG	Basic-PSA	PSA-1/4	
3CHS2PSSP0440	AB	CHG	Basic-PSA	PSA-1/4	
3CHS2PSSP0441	AB	CHG	Basic-PSA	PSA-1/4	
3CHS2PSSP0455	AB	CHG	Basic-PSA	PSA-1/4	
3CHS2PSSP0456	AB	CHG	Basic-PSA	PSA-1/2	
3CHS2PSSP0467	AB	CHG	Basic-PSA	PSA-1/2	
3CHS2PSSP0468	AB	CHG	Basic-PSA	PSA-1/2	
3MSS4PSSP0002	ESF	STG	Basic-PSA	PSA-1/4	
3MSS4PSSP0007	ESF	STG	Basic-PSA	PSA-1/4	
3MSS4PSSP0011	ESF	STG	Basic-PSA	PSA-1/4	
3MSS4PSSP0035	ESF	STG	Basic-PSA	PSA-1/4	
3MSS4PSSP0040	ESF	STG	Basic-PSA	PSA-1/4	
3MSS4PSSP0042	ESF	STG	Basic-PSA	PSA-1/4	
3RHS4PSSP0402	ESF	RHR	Basic-PSA	PSA-1/2	
3RHS4PSSP0444	ESF	RHR	Basic-PSA	PSA-1/4	
CP371500H001	ESF	RHR	Basic-PSA	PSA-1/4	
CP394044H005	ESF	AFW	Basic-PSA	PSA-1/4	
CP394045H001	ESF	AFW	Basic-PSA	PSA-1/4	
CP394045H004	ESF	AFW	Basic-PSA	PSA-1/4	
CP394045H005	ESF	AFW	Basic-PSA	PSA-1/2	
CP394045H010	ESF	AFW	Basic-PSA	PSA-1/4	
CP394052H001	ESF	AFW	Basic-PSA	PSA-1/4	
CP394052H005	ESF	AFW	Basic-PSA	PSA-1/4	
CP394052H006	ESF	AFW	Basic-PSA	PSA-1/4	
CP394052H008	ESF	AFW	Basic-PSA	PSA-1/4	

ATTACHMENT 3

DPTG "B1" (PSA-1 Mechanical Snubbers in CS)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3BDG1PSSP0400	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0401	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0402	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0403	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0404	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0408	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0409	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0411	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0412	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0413	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0416	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0418	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0419	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0420	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0421	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0422	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0423	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0424	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0426	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0427	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0428	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0431	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0432	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0461	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0462	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0463	CS	BDG	Basic-PSA	PSA-1L	
3BDG1PSSP0479	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0480	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0481	CS	BDG	Basic-PSA	PSA-1	SIB
3BDG1PSSP0483	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0484	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0485	CS	BDG	Basic-PSA	PSA-1	
3BDG1PSSP0488	CS	BDG	Basic-PSA	PSA-1	SIB
3BDG1PSSP0493	CS	BDG	Basic-PSA	PSA-1	SIB
3BDG1PSSP0508	CS	BDG	Basic-PSA	PSA-1	

DPTG "B1" (PSA-1 Mechanical Snubbers in CS)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3CHS1PSSP0610	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0611	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0613	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0626	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0635	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0644	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0645	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0649	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0650	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0653	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0704	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0705	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0706	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0711	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0712	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0719	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0720	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP0742	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP1035	CS	CHG	Basic-PSA	PSA-1	
3CHS1PSSP1058	CS	CHG	Basic-PSA	PSA-1	
3FWA1PSSP0404	CS	AFW	Basic-PSA	PSA-1	
3FWA1PSSP0405	CS	AFW	Basic-PSA	PSA-1	
3FWA1PSSP0406	CS	AFW	Basic-PSA	PSA-1	
3FWA1PSSP0411	CS	AFW	Basic-PSA	PSA-1	
3FWA1PSSP0412	CS	AFW	Basic-PSA	PSA-1	
3FWA1PSSP0414	CS	AFW	Basic-PSA	PSA-1	
3FWA1PSSP0416	CS	AFW	Basic-PSA	PSA-1	
3FWA1PSSP0419	CS	AFW	Basic-PSA	PSA-1	
3MSS1PSSP0457	CS	STG	Basic-PSA	PSA-1	
3MSS1PSSP0458	CS	STG	Basic-PSA	PSA-1	
3MSS1PSSP0461	CS	STG	Basic-PSA	PSA-1	
3MSS1PSSP0462	CS	STG	Basic-PSA	PSA-1	
3MSS1PSSP0463	CS	STG	Basic-PSA	PSA-1L	
3MSS1PSSP0464	CS	STG	Basic-PSA	PSA-1L	
3MSS1PSSP0468	CS	STG	Basic-PSA	PSA-1	
3MSS1PSSP0469	CS	STG	Basic-PSA	PSA-1	
3MSS1PSSP0470	CS	STG	Basic-PSA	PSA-1	

DPTG "B1" (PSA-1 Mechanical Snubbers in CS)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3MSS1PSSP0473	CS	STG	Basic-PSA	PSA-1	
3MSS1PSSP0474	CS	STG	Basic-PSA	PSA-1	
3MSS1PSSP0558	CS	STG	Basic-PSA	PSA-1	
3MSS1PSSP0559	CS	STG	Basic-PSA	PSA-1	
3RCS1IPSSP1519	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0009	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0012	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0014	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0016	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0019	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0022	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0032	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0056	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0061	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0062	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0064	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0065	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0101	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0103	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0104	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0105	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0107	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0112	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0116	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0117	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0125	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0134	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0155	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0165	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0166	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0445	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0446	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0447	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0460	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0461	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0606	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0607	CS	RCS	Basic-PSA	PSA-1	SIB

DPTG "B1" (PSA-1 Mechanical Snubbers in CS)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RCS1PSSP0608	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0640	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0641	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0642	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0643	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0646	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0647	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0648	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0804	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0806	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0810	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0811	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0819	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0825	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0827	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0828	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0829	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0831	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0832	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0834	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0835	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0837	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0838	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0842	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0844	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0849	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0851	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0855	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0859	CS	RCS	Basic-PSA	PSA-1	SIB
3RCS1PSSP0914	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0923	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP0927	CS	RCS	Basic-PSA	PSA-1L	
3RCS1PSSP0933	CS	RCS	Basic-PSA	PSA-1L	
3RCS1PSSP0934	CS	RCS	Basic-PSA	PSA-1L	
3RCS1PSSP0935	CS	RCS	Basic-PSA	PSA-1L	
3RCS1PSSP0936	CS	RCS	Basic-PSA	PSA-1L	
3RCS1PSSP0947	CS	RCS	Basic-PSA	PSA-1	

DPTG "B1" (PSA-1 Mechanical Snubbers in CS)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RCS1PSSP0948	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP1009	CS	RCS	Basic-PSA	PSA-1L	
3RCS1PSSP1010	CS	RCS	Basic-PSA	PSA-1L	
3RCS1PSSP1011	CS	RCS	Basic-PSA	PSA-1L	
3RCS1PSSP1020	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP1024	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP1025	CS	RCS	Basic-PSA	PSA-1L	
3RCS1PSSP1068	CS	RCS	Basic-PSA	PSA-1	
3RCS1PSSP1117	CS	RCS	Basic-PSA	PSA-1L	
3SIH1PSSP0451	CS	HPI	Basic-PSA	PSA-1	
3SIH1PSSP0452	CS	HPI	Basic-PSA	PSA-1	
3SIH1PSSP1031	CS	HPI	Basic-PSA	PSA-1	
3SIH1PSSP1032	CS	HPI	Basic-PSA	PSA-1	
3SIH1PSSP1109	CS	HPI	Basic-PSA	PSA-1	
3SIL1PSSP0412	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP0414	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP0423	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP0424	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP0440	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP0451	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP0459	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP0996	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP1006	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP1007	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP1034	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP1036	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP1043	CS	LPI	Basic-PSA	PSA-1	
3SIL1PSSP1054	CS	LPI	Basic-PSA	PSA-1	
CP407011H001	CS	CVS	Basic-PSA	PSA-1	SIB
CP407011H004	CS	CVS	Basic-PSA	PSA-1	
CP408051H001	CS	BDG	Basic-PSA	PSA-1	SIB

NOTE: Non-QA Snubbers which constitute the Seismic Interface Boundary are labeled as "SIB" and are required to be included in the Surveillance Program as required by Specification SP-ME-570.

ATTACHMENT 4

DPTG "B2" (PSA-1 Mechanical Snubbers in MSVB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3DTM4PSSP0027	MSVB	DTM	Basic-PSA	PSA-1	
3DTM4PSSP0030	MSVB	DTM	Basic-PSA	PSA-1	
3DTM4PSSP0039	MSVB	DTM	Basic-PSA	PSA-1	
3DTM4PSSP0042	MSVB	DTM	Basic-PSA	PSA-1	
3DTM4PSSP0051	MSVB	DTM	Basic-PSA	PSA-1	
3DTM4PSSP0054	MSVB	DTM	Basic-PSA	PSA-1	
3DTM4PSSP0063	MSVB	DTM	Basic-PSA	PSA-1	
3DTM4PSSP0066	MSVB	DTM	Basic-PSA	PSA-1	
3MSS4PSSP0026	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0060	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0483	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0484	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0485	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0486	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0487	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0488	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0489	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0490	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0491	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0492	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0493	MSVB	STG	Basic-PSA	PSA-1	
3MSS4PSSP0494	MSVB	STG	Basic-PSA	PSA-1	
3SVV4PSSP0009	MSVB	VDM	Basic-PSA	PSA-1	
3SVV4PSSP0020	MSVB	VDM	Basic-PSA	PSA-1	
3SVV4PSSP0032	MSVB	VDM	Basic-PSA	PSA-1	

ATTACHMENT 5

DPTG "B3" (PSA-1 Mechanical Snubbers in AB and ESF)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3CHS2PSSP0400	AB	CHG	Basic-PSA	PSA-1	
3CHS2PSSP0401	AB	CHG	Basic-PSA	PSA-1	
3CHS2PSSP0402	AB	CHG	Basic-PSA	PSA-1	
3CHS2PSSP0413	AB	CHG	Basic-PSA	PSA-1	
3CHS2PSSP0414	AB	CHG	Basic-PSA	PSA-1	
3MSS4PSSP0009	ESF	STG	Basic-PSA	PSA-1	
3MSS4PSSP0013	ESF	STG	Basic-PSA	PSA-1	
3MSS4PSSP0022	ESF	STG	Basic-PSA	PSA-1	
3MSS4PSSP0028	ESF	STG	Basic-PSA	PSA-1	
3RHS4PSSP0411	ESF	RHR	Basic-PSA	PSA-1	
3RHS4PSSP0412	ESF	RHR	Basic-PSA	PSA-1	
3RHS4PSSP0419	ESF	RHR	Basic-PSA	PSA-1	
3RHS4PSSP0443	ESF	RHR	Basic-PSA	PSA-1	
3RHS4PSSP0445	ESF	RHR	Basic-PSA	PSA-1	
3RHS4PSSP0446	ESF	RHR	Basic-PSA	PSA-1	
3RSS4PSSP0406	ESF	CRS	Basic-PSA	PSA-1	
3RSS4PSSP0407	ESF	CRS	Basic-PSA	PSA-1	
3RSS4PSSP0408	ESF	CRS	Basic-PSA	PSA-1	
3RSS4PSSP0409	ESF	CRS	Basic-PSA	PSA-1	
3RSS4PSSP0410	ESF	CRS	Basic-PSA	PSA-1	
3RSS4PSSP0411	ESF	CRS	Basic-PSA	PSA-1	
3SIH4PSSP0403	ESF	HPI	Basic-PSA	PSA-1	
3SIH4PSSP0404	ESF	HPI	Basic-PSA	PSA-1	
3SIH4PSSP0405	ESF	HPI	Basic-PSA	PSA-1	
3SIH4PSSP0432	ESF	HPI	Basic-PSA	PSA-1	
3SIL4PSSP0011	ESF	LPI	Basic-PSA	PSA-1	
3SIL4PSSP0012	ESF	LPI	Basic-PSA	PSA-1	
3SIL4PSSP0017	ESF	LPI	Basic-PSA	PSA-1	
3SIL4PSSP0018	ESF	LPI	Basic-PSA	PSA-1	
CP379706H022	ESF	RSS	Basic-PSA	PSA-1	
CP379706H025	ESF	RSS	Basic-PSA	PSA-1	
CP379707H022	ESF	RSS	Basic-PSA	PSA-1	
CP379707H025	ESF	RSS	Basic-PSA	PSA-1	

ATTACHMENT 6

DPTG "B4" (PSA-3 Mechanical Snubbers in MSVB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3FWS4PSSP0401	MSVB	FWR	Basic-PSA	PSA-3	
3FWS4PSSP0402	MSVB	FWR	Basic-PSA	PSA-3	
3FWS4PSSP0403	MSVB	FWR	Basic-PSA	PSA-3	
3FWS4PSSP0404	MSVB	FWR	Basic-PSA	PSA-3	
3MSS4PSSP0003	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0006	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0014	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0017	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0023	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0024	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0037	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0102	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0111	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0113	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0122	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0482	MSVB	STG	Basic-PSA	PSA-3	
3MSS4PSSP0495	MSVB	STG	Basic-PSA	PSA-3	
3SVV4PSSP0007	MSVB	VDM	Basic-PSA	PSA-3	
3SVV4PSSP0018	MSVB	VDM	Basic-PSA	PSA-3	
3SVV4PSSP0029	MSVB	VDM	Basic-PSA	PSA-3	
3SVV4PSSP0030	MSVB	VDM	Basic-PSA	PSA-3	
3SVV4PSSP0031	MSVB	VDM	Basic-PSA	PSA-3	
3SVV4PSSP0039	MSVB	VDM	Basic-PSA	PSA-3	
3SVV4PSSP0041	MSVB	VDM	Basic-PSA	PSA-3	
3SVV4PSSP0044	MSVB	VDM	Basic-PSA	PSA-3	

ATTACHMENT 7

DPTG "B5" (PSA-3 Mechanical Snubbers in CS)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3FWA1PSSP0400	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0401	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0402	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0403	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0407	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0408	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0409	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0410	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0413	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0415	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0417	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0418	CS	AFW	Basic-PSA	PSA-3	
3FWA1PSSP0420	CS	AFW	Basic-PSA	PSA-3	
3ICI1PSSP0005	CS	IMS	Basic-PSA	PSA-3	
3ICI1PSSP0006	CS	IMS	Basic-PSA	PSA-3	
3MSS1PSSP0555	CS	STG	Basic-PSA	PSA-3	
3QSS1PSSP0402	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0403	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0404	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0405	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0406	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0408	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0409	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0410	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0411	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0420	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0421	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0449	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0450	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0451	CS	QSS	Basic-PSA	PSA-3	
3QSS1PSSP0469	CS	QSS	Basic-PSA	PSA-3	
3RCS1PSSP0021	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0035	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0055	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0058	CS	RCS	Basic-PSA	PSA-3	

DPTG "B5" (PSA-3 Mechanical Snubbers in CS)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RCS1PSSP0080	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0081	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0082	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0086	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0087	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0088	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0091	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0092	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0099	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0146	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0147	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0150	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0521	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0526	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0527	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0529	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0530	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0532	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0809	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0812	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0813	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0815	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0816	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0820	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0821	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0822	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0824	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0830	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0836	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP0839	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0840	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0841	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP0845	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP1026	CS	RCS	Basic-PSA	PSA-3	
3RCS1PSSP1092	CS	RCS	Basic-PSA	PSA-3	SIB
3RCS1PSSP1093	CS	RCS	Basic-PSA	PSA-3	SIB
3RHS1PSSP0408	CS	RHR	Basic-PSA	PSA-3	

DPTG "B5" (PSA-3 Mechanical Snubbers in CS)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RHS1PSSP0409	CS	RHR	Basic-PSA	PSA-3	
3RHS1PSSP0414	CS	RHR	Basic-PSA	PSA-3	
3RHS1PSSP0423	CS	RHR	Basic-PSA	PSA-3	
3SIH1PSSP0453	CS	HPI	Basic-PSA	PSA-3	
3SIH1PSSP0458	CS	HPI	Basic-PSA	PSA-3	
3SIH1PSSP0905	CS	HPI	Basic-PSA	PSA-3	
3SIL1PSSP0400	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0401	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0402	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0403	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0408	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0409	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0410	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0411	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0413	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0415	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0416	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0419	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0420	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0421	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0422	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0425	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0426	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0427	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0428	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0429	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0430	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0431	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0436	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0437	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0438	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0439	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0441	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0442	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0443	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0444	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0445	CS	LPI	Basic-PSA	PSA-3	

DPTG "B5" (PSA-3 Mechanical Snubbers in CS)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3SIL1PSSP0448	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0452	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0453	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0454	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0462	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0463	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0465	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0466	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0467	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0468	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0470	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0471	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0472	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0473	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0903	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0904	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0907	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0908	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0994	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0995	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0997	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0998	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP0999	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP1000	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP1001	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP1050	CS	LPI	Basic-PSA	PSA-3	
3SIL1PSSP1051	CS	LPI	Basic-PSA	PSA-3	

NOTE: Non-QA Snubbers which constitute the Seismic Interface Boundary are labeled as "SIB" and are required to be included in the Surveillance Program as required by Specification SP-ME-570.

ATTACHMENT 8

DPTG "B6" (PSA-3 Mechanical Snubbers in AB, ESF, and EGE)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3CCP2PSSP0400	AB	CCP	Basic-PSA	PSA-3	
3CCP2PSSP0401	AB	CCP	Basic-PSA	PSA-3	
3CCP2PSSP0405	AB	CCP	Basic-PSA	PSA-3	
3CCP2PSSP0406	AB	CCP	Basic-PSA	PSA-3	
3CCP4PSSP0400	ESF	CCP	Basic-PSA	PSA-3	
3CCP4PSSP0401	ESF	CCP	Basic-PSA	PSA-3	
3CCP4PSSP0403	ESF	CCP	Basic-PSA	PSA-3	
3CCP4PSSP0404	ESF	CCP	Basic-PSA	PSA-3	
3CCP4PSSP0407	ESF	CCP	Basic-PSA	PSA-3	
3CCP4PSSP0411	ESF	CCP	Basic-PSA	PSA-3	
3CCP4PSSP0413	ESF	CCP	Basic-PSA	PSA-3	
3CCP4PSSP0414	ESF	CCP	Basic-PSA	PSA-3	
3CCP4PSSP0415	ESF	CCP	Basic-PSA	PSA-3	
3CHS2PSSP0460	AB	CHG	Basic-PSA	PSA-3	
3CHS2PSSP0461	AB	CHG	Basic-PSA	PSA-3	
3CHS2PSSP0466	AB	CHG	Basic-PSA	PSA-3	
3EGD6PSSP0001	EGE	DGN	Basic-PSA	PSA-3	
3EGD6PSSP0003	EGE	DGN	Basic-PSA	PSA-3	
3EGD6PSSP0013	EGE	DGN	Basic-PSA	PSA-3	
3EGD6PSSP0015	EGE	DGN	Basic-PSA	PSA-3	
3FWA4PSSP0936	ESF	AFW	Basic-PSA	PSA-3	QA-DF
3QSS4PSSP0400	ESF	QSS	Basic-PSA	PSA-3	
3QSS4PSSP0401	ESF	QSS	Basic-PSA	PSA-3	
3RHS4PSSP0400	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0401	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0403	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0407	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0408	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0409	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0413	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0414	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0415	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0416	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0417	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0420	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0421	ESF	RHR	Basic-PSA	PSA-3	

DPTG "B6" (PSA-3 Mechanical Snubbers in AB, ESF, and EGE)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RHS4PSSP0422	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0423	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0424	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0427	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0428	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0429	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0430	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0431	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0434	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0438	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0439	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0440	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0447	ESF	RHR	Basic-PSA	PSA-3	
3RHS4PSSP0459	ESF	RHR	Basic-PSA	PSA-3	
3RSS4PSSP0415	ESF	CRS	Basic-PSA	PSA-3	
3RSS4PSSP0417	ESF	CRS	Basic-PSA	PSA-3	
3RSS4PSSP0459	ESF	CRS	Basic-PSA	PSA-3	
3RSS4PSSP0460	ESF	CRS	Basic-PSA	PSA-3	
3SIH4PSSP0402	ESF	HPI	Basic-PSA	PSA-3	
3SIL4PSSP0004	ESF	LPI	Basic-PSA	PSA-3	
3SIL4PSSP0005	ESF	LPI	Basic-PSA	PSA-3	
3SIL4PSSP0006	ESF	LPI	Basic-PSA	PSA-3	
3SIL4PSSP0013	ESF	LPI	Basic-PSA	PSA-3	
3SIL4PSSP0014	ESF	LPI	Basic-PSA	PSA-3	
3SIL4PSSP0070	ESF	LPI	Basic-PSA	PSA-3	
3SIL4PSSP0072	ESF	LPI	Basic-PSA	PSA-3	
3SWP4PSSP0423	ESF	SWS	Basic-PSA	PSA-3	
3SWP4PSSP0427	ESF	SWS	Basic-PSA	PSA-3	

NOTE: QA-DF and SIB-DF Dual Function snubbers which are Pipe Supports/Rupture Restraints are labeled as QA-DF or SIB-DF and are required to be included in the Surveillance Program as required by Specification SP-W-570.

ATTACHMENT 9

DPTG "B7" (PSA-10 Mechanical Snubbers in CS, AB, ESF, MSVB, EGE, and TB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3BDG4PSSP0047	MSVB	BDG	Basic-PSA	PSA-10	SIB-DF
3BDG4PSSP0050	MSVB	BDG	Basic-PSA	PSA-10	SIB-DF
3BDG4PSSP0053	MSVB	BDG	Basic-PSA	PSA-10	SIB-DF
3BDG4PSSP0056	MSVB	BDG	Basic-PSA	PSA-10	SIB-DF
3BDG4PSSP0200	MSVB	BDG	Basic-PSA	PSA-10	SIB-DF
3BDG4PSSP0201	MSVB	BDG	Basic-PSA	PSA-10	SIB-DF
3BDG4PSSP0202	MSVB	BDG	Basic-PSA	PSA-10	SIB-DF
3BDG4PSSP0203	MSVB	BDG	Basic-PSA	PSA-10	SIB-DF
3CCP2PSSP0414	AB	CCP	Basic-PSA	PSA-10	
3CCP2PSSP0415	AB	CCP	Basic-PSA	PSA-10	
3CCP4PSSP0412	ESF	CCP	Basic-PSA	PSA-10	
3CHS1PSSP0551	CS	CHG	Basic-PSA	PSA-10	QA-DF
3CHS1PSSP0552	CS	CHG	Basic-PSA	PSA-10	QA-DF
3EGD6PSSP0010	EGE	DGN	Basic-PSA	PSA-10	SIB
3EGD6PSSP0022	EGE	DGN	Basic-PSA	PSA-10	SIB
3EGD6PSSP0025	EGE	DGN	Basic-PSA	PSA-10	SIB
3EGD6PSSP0026	EGE	DGN	Basic-PSA	PSA-10	SIB
3FWS1PSSP0402	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0403	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0404	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0413	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0414	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0415	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0426	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0427	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0429	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0430	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0431	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0432	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0437	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0438	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0440	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0441	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0442	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0443	CS	FWR	Basic-PSA	PSA-10	

DPTG "B7" (PSA-10 Mechanical Snubbers in CS, AB, ESF, MSVB, EGE, and TB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3FWS1PSSP0444	CS	FWR	Basic-PSA	PSA-10	
3FWS1PSSP0445	CS	FWR	Basic-PSA	PSA-10	
3MSS1PSSP0438	CS	STG	Basic-PSA	PSA-10	
3MSS1PSSP0442	CS	STG	Basic-PSA	PSA-10	
3MSS5PSSP0413	TB	STG	Basic-PSA	PSA-10	SIB
3MSS5PSSP0414	TB	STG	Basic-PSA	PSA-10	SIB
3MSS5PSSP0418	TB	STG	Basic-PSA	PSA-10	SIB
3MSS5PSSP0497	TB	STG	Basic-PSA	PSA-10	SIB
3QSS1PSSP0142	CS	QSS	Basic-PSA	PSA-10	
3QSS1PSSP0400	CS	QSS	Basic-PSA	PSA-10	
3QSS1PSSP0401	CS	QSS	Basic-PSA	PSA-10	
3QSS1PSSP0448	CS	QSS	Basic-PSA	PSA-10	
3QSS1PSSP0453	CS	QSS	Basic-PSA	PSA-10	
3QSS1PSSP0454	CS	QSS	Basic-PSA	PSA-10	
3QSS1PSSP0459	CS	QSS	Basic-PSA	PSA-10	
3QSS1PSSP0460	CS	QSS	Basic-PSA	PSA-10	
3RCS1PSSP0083	CS	RCS	Basic-PSA	PSA-10	SIB
3RCS1PSSP0084	CS	RCS	Basic-PSA	PSA-10	SIB
3RCS1PSSP0089	CS	RCS	Basic-PSA	PSA-10	SIB
3RCS1PSSP0090	CS	RCS	Basic-PSA	PSA-10	SIB
3RCS1PSSP0094	CS	RCS	Basic-PSA	PSA-10	SIB
3RCS1PSSP0095	CS	RCS	Basic-PSA	PSA-10	SIB
3RCS1PSSP0096	CS	RCS	Basic-PSA	PSA-10	SIB
3RCS1PSSP0097	CS	RCS	Basic-PSA	PSA-10	SIB
3RCS1PSSP0098	CS	RCS	Basic-PSA	PSA-10	SIB
3RCS1PSSP0523	CS	RCS	Basic-PSA	PSA-10	
3RCS1PSSP0525	CS	RCS	Basic-PSA	PSA-10	
3RCS1PSSP0528	CS	RCS	Basic-PSA	PSA-10	
3RCS1PSSP0992	CS	RCS	Basic-PSA	PSA-10	QA-DF
3RCS1PSSP0993	CS	RCS	Basic-PSA	PSA-10	QA-DF
3RHS1PSSP0402	CS	RHR	Basic-PSA	PSA-10	
3RHS1PSSP0410	CS	RHR	Basic-PSA	PSA-10	
3RHS1PSSP0411	CS	RHR	Basic-PSA	PSA-10	
3RHS1PSSP0420	CS	RHR	Basic-PSA	PSA-10	
3RHS1PSSP0421	CS	RHR	Basic-PSA	PSA-10	
3RHS1PSSP0424	CS	RHR	Basic-PSA	PSA-10	
3RHS4PSSP0006	ESF	RHR	Basic-PSA	PSA-10	

DPTG "B7" (PSA-10 Mechanical Snubbers in CS, AB, ESF, MSVB, EGE, and TB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RHS4PSSP0406	ESF	RHR	Basic-PSA	PSA-10	
3RHS4PSSP0448	ESF	RHR	Basic-PSA	PSA-10	
3RHS4PSSP0449	ESF	RHR	Basic-PSA	PSA-10	
3RHS4PSSP0454	ESF	RHR	Basic-PSA	PSA-10	
3SIH1PSSP0457	CS	HPI	Basic-PSA	PSA-10	
3SIL1PSSP0449	CS	LPI	Basic-PSA	PSA-10	
3SIL1PSSP0464	CS	LPI	Basic-PSA	PSA-10	
3SIL1PSSP0469	CS	LPI	Basic-PSA	PSA-10	
3SIL1PSSP1042	CS	LPI	Basic-PSA	PSA-10	
3SVV4PSSP0004	MSVB	VDM	Basic-PSA	PSA-10	
3SVV4PSSP0015	MSVB	VDM	Basic-PSA	PSA-10	
3SVV4PSSP0034	MSVB	VDM	Basic-PSA	PSA-10	
3SWP2PSSP0402	AB	SWS	Basic-PSA	PSA-10	
3SWP2PSSP0405	AB	SWS	Basic-PSA	PSA-10	
3SWP2PSSP0409	AB	SWS	Basic-PSA	PSA-10	
3SWP2PSSP0410	AB	SWS	Basic-PSA	PSA-10	
3SWP2PSSP0411	AB	SWS	Basic-PSA	PSA-10	
3SWP2PSSP0412	AB	SWS	Basic-PSA	PSA-10	

NOTES:

Non-QA Snubbers which constitute the Seismic Interface Boundary are labeled as "SIB" and are required to be included in the Surveillance Program as required by Specification SP-ME-570.

QA-DF and SIB-DF Dual Function snubbers which are Pipe Supports/Rupture Restraints are labeled as QA-DF or SIB-DF and are required to be included in the Surveillance Program as required by Specification SP-W-570.

ATTACHMENT 10

DPTG "C" (PSA-35 and PSA-100 Mechanical Snubbers in CS, MSVB, AB, and TB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3BDG4PSSP0046	MSVB	BDG	Basic-PSA	PSA-35	
3BDG4PSSP0049	MSVB	BDG	Basic-PSA	PSA-35	
3BDG4PSSP0052	MSVB	BDG	Basic-PSA	PSA-35	
3BDG4PSSP0055	MSVB	BDG	Basic-PSA	PSA-35	
3FWS1PSSP0400	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0401	CS	FWR	Basic-PSA	PSA-100	
3FWS1PSSP0405	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0406	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0407	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0408	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0409	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0410	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0411	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0412	CS	FWR	Basic-PSA	PSA-100	
3FWS1PSSP0416	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0417	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0418	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0419	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0420	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0421	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0422	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0423	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0424	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0425	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0428	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0433	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0434	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0435	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0436	CS	FWR	Basic-PSA	PSA-35	
3FWS1PSSP0439	CS	FWR	Basic-PSA	PSA-35	
3FWS4PSSP0023	MSVB	FWR	Basic-PSA	PSA-100	
3FWS4PSSP0024	MSVB	FWR	Basic-PSA	PSA-100	
3FWS4PSSP0025	MSVB	FWR	Basic-PSA	PSA-100	
3FWS4PSSP0026	MSVB	FWR	Basic-PSA	PSA-100	
3FWS4PSSP0200	MSVB	FWR	Basic-PSA	PSA-100	
3FWS4PSSP0201	MSVB	FWR	Basic-PSA	PSA-100	
3FWS4PSSP0202	MSVB	FWR	Basic-PSA	PSA-100	
3FWS4PSSP0203	MSVB	FWR	Basic-PSA	PSA-100	
3FWS5PSSP0444	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0449	TB	FWR	Basic-PSA	PSA-35	
3MSS1PSSP0439	CS	STG	Basic-PSA	PSA-35	

DPTG "C" (PSA-35 and PSA-100 Mechanical Snubbers in CS, MSVB, AB, and TB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3MSS1PSSP0440	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0441	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0443	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0444	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0445	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0446	CS	STG	Basic-PSA	PSA-100	
3MSS1PSSP0447	CS	STG	Basic-PSA	PSA-100	
3MSS1PSSP0448	CS	STG	Basic-PSA	PSA-100	
3MSS1PSSP0449	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0450	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0451	CS	STG	Basic-PSA	PSA-100	
3MSS1PSSP0452	CS	STG	Basic-PSA	PSA-100	
3MSS1PSSP0453	CS	STG	Basic-PSA	PSA-100	
3MSS1PSSP0454	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0455	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0475	CS	STG	Basic-PSA	PSA-35	
3MSS1PSSP0476	CS	STG	Basic-PSA	PSA-35	
3MSS4PSSP0400	MSVB	STG	Basic-PSA	PSA-100	
3MSS4PSSP0401	MSVB	STG	Basic-PSA	PSA-100	
3MSS4PSSP0403	MSVB	STG	Basic-PSA	PSA-100	
3MSS4PSSP0404	MSVB	STG	Basic-PSA	PSA-100	
3MSS4PSSP0409	MSVB	STG	Basic-PSA	PSA-100	
3MSS4PSSP0410	MSVB	STG	Basic-PSA	PSA-100	
3MSS4PSSP0415	MSVB	STG	Basic-PSA	PSA-100	
3MSS4PSSP0416	MSVB	STG	Basic-PSA	PSA-100	
3MSS5PSSP0402	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0405	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0406	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0407	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0408	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0411	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0412	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0417	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0419	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0496	TB	STG	Basic-PSA	PSA-35	
3RCS1PSSP0400	CS	RCS	Basic-PSA	PSA-35	
3RCS1PSSP0401	CS	RCS	Basic-PSA	PSA-35	
3RCS1PSSP0407	CS	RCS	Basic-PSA	PSA-35	
3RCS1PSSP0502	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0503	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0504	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0511	CS	RCS	Basic-PSA	PSA-100	

DPTG "C" (PSA-35 and PSA-100 Mechanical Snubbers in CS, MSVB, AB, and TB)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RCS1PSSP0512	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0513	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0514	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0515	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0516	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0517	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0518	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0519	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0522	CS	RCS	Basic-PSA	PSA-35	
3RCS1PSSP0564	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0565	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0566	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0567	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0568	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0569	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0570	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0571	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0572	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0573	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0574	CS	RCS	Basic-PSA	PSA-100	
3RCS1PSSP0575	CS	RCS	Basic-PSA	PSA-100	
3RHS1PSSP0403	CS	RHR	Basic-PSA	PSA-35	
3RHS1PSSP0404	CS	RHR	Basic-PSA	PSA-35	
3RHS1PSSP0405	CS	RHR	Basic-PSA	PSA-35	
3RHS1PSSP0406	CS	RHR	Basic-PSA	PSA-35	
3RHS1PSSP0412	CS	RHR	Basic-PSA	PSA-100	
3RHS1PSSP0413	CS	RHR	Basic-PSA	PSA-35	
3SIL1PSSP0474	CS	LPI	Basic-PSA	PSA-35	
3SIL1PSSP0475	CS	LPI	Basic-PSA	PSA-35	
3SIL1PSSP0476	CS	LPI	Basic-PSA	PSA-35	
3SIL1PSSP0477	CS	LPI	Basic-PSA	PSA-35	
3SWP2PSSP0406	AB	SWS	Basic-PSA	PSA-100	

ATTACHMENT 11

DPTG "D" (Hydraulic snubbers attached to the steam generators and reactor coolant pumps)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RCS1SUP4-01	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-02	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-03	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-04	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-05	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-06	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-07	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-08	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-11	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-12	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-13	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-14	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-15	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-17	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-18	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-19	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-20	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-21	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-22	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-23	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-24	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-25	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-26	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-27	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-28	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-29	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-30	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-31	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-32	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-33	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-34	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-35	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-36	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-37	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-38	CS	RCS	Paul Munroe	2000 Kip	

DPTG "D" (Hydraulic snubbers attached to the steam generators and reactor coolant pumps)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3RCS1SUP4-39	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-40	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-41	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-42	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-43	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-45	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-46	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-47	CS	RCS	Paul Munroe	2000 Kip	
3RCS1SUP4-48	CS	RCS	Paul Munroe	2000 Kip	

ATTACHMENT 12

DPTG "E" (All snubbers installed in Non-Safety Related locations where their failures would not have an adverse effect on any Safety Related system or component)

Support ID Number	Building	System	Manufacturer	Size	Notes
3FWS5PSSP0445	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0446	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0451	TB	FWR	Basic-PSA	PSA-10	
3FWS5PSSP0452	TB	FWR	Basic-PSA	PSA-10	
3FWS5PSSP0455	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0456	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0457	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0458	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0459	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0460	TB	FWR	Basic-PSA	PSA-100	
3FWS5PSSP0461	TB	FWR	Basic-PSA	PSA-100	
3FWS5PSSP0462	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0463	TB	FWR	Basic-PSA	PSA-35	
3FWS5PSSP0464	TB	FWR	Basic-PSA	PSA-10	
3FWS5PSSP0466	TB	FWR	Basic-PSA	PSA-35	
3HRS5PSSP0101	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0102	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0103	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0104	TB	RTH	Basic-PSA	PSA-1	
3HRS5PSSP0105	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0106	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0107	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0108	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0109	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0110	TB	RTH	Basic-PSA	PSA-1	
3HRS5PSSP0111	TB	RTH	Basic-PSA	PSA-1	
3HRS5PSSP0112	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0113	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0114	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0115	TB	RTH	Basic-PSA	PSA-1	
3HRS5PSSP0120	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0121	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0122	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0123	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0124	TB	RTH	Basic-PSA	PSA-3	

DPTG "E" (All snubbers installed in Non-Safety Related locations where their failures would not have an adverse effect on any Safety Related system or component)					
Support ID Number	**Building**	**System**	**Manufacturer**	**Size**	**Notes**
3HRS5PSSP0125	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0126	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0127	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0128	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0129	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0130	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0131	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0132	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0133	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0134	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0135	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0136	TB	RTH	Basic-PSA	PSA-10	
3HRS5PSSP0137	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0138	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0139	TB	RTH	Basic-PSA	PSA-3	
3HRS5PSSP0212	TB	RTH	Basic-PSA	PSA-3	
3HVG2PSSP0163	AB	GHT	Basic-PSA	PSA-1/4	
3HVG2PSSP0184	AB	GHT	Basic-PSA	PSA-1/2	
3MSS5PSSP0420	TB	STG	Basic-PSA	PSA-100	
3MSS5PSSP0421	TB	STG	Basic-PSA	PSA-100	
3MSS5PSSP0422	TB	STG	Basic-PSA	PSA-100	
3MSS5PSSP0423	TB	STG	Basic-PSA	PSA-10	
3MSS5PSSP0424	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0425	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0426	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0427	TB	STG	Basic-PSA	PSA-10	
3MSS5PSSP0428	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0430	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0432	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0433	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0434	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0435	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0436	TB	STG	Basic-PSA	PSA-35	
3MSS5PSSP0437	TB	STG	Basic-PSA	PSA-35	