PROCEDURE COVER SHEET

PPL SUSQUEHANNA, LLC PROCEDURE	
SUSQUEHANNA STEAM ELECTRIC STATION UNIT 2 INSERVICE TESTING PROGRAM PLAN ADHERENCE LEVEL: INFORMATION USE	SUS-ISTPLN-200.0 Revision 10 Page 1 of 302 Unit 2

QUALITY CLASSIFICATION:	APPROVAL CLASSIFICATION:
[X] QA Program [ ] Non-QA Program	[X] Plant [ ] Non-Plant [ ] Instruction

EFFECTIVE DATE: 6/18/2014

PERIODIC REVIEW FREQUENCY: NONE

NEXT PERIODIC REVIEW DUE DATE: NONE

RECOMMENDED REVIEWS:
Programs Engineering

Procedure Owner: IST Program Owner

Responsible Supervisor: Supervisor-Programs & Components

Responsible FUM: Manager-Programs Engineering

Responsible Approver: Manager-Programs Engineering

PROCEDURE REVISION SUMMARY

1. Added missing information to Section E and added missing Sections F and G of Relief Request 2RR04 in Attachment E.

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SECTION PAGE

1.0 PURPOSE AND SCOPE

1.1 Purpose

NOTE

1. This document is the Fourth Ten-year Interval Program Plan for Inservice Testing (IST) of Pumps and Valves at the Susquehanna Steam Electric Station (SSES) Unit 2 in compliance with the requirements of 10 CFR 50.55a(f) and Station Technical Specifications. The fourth ten year interval is applicable from June 1, 2014 to May 31, 2024. This Program plan was prepared in accordance with the rules of the ASME Code for Operation and Maintenance of Nuclear Power Plants, ASME OM Code-2004, through the ASME OMb Code-2006 Addenda (OM-2004 through OMb-2006 referred to as "The Code").
2. Administrative and implementing procedures, reference values, test results, and other records required to define and execute the IST Program are retained at SSES.

1.1.1 The Fourth Interval SSES Unit 2 IST Pump and Valve Program establishes testing requirements to assess the operational readiness of certain ASME Safety Class 1, 2, and 3 pumps and valves that are required to:

- Shut down the reactor to the safe shutdown condition
- Maintain the reactor in the safe shutdown condition, or
- Mitigate the consequences of an accident

1.1.2 This Program Plan describes the SSES Unit 2 testing requirements and commitments for testing those ASME Code Class 1, 2, and 3 components that meet the criteria for inclusion into the IST Pump and Valve Program.

1.2 Scope

1.2.1 Regulatory Bases and Scope

a. Inservice tests to verify operational readiness of pumps and valves, whose function is required for safety, conducted during successive 120-month intervals must comply with the requirements of the latest edition and addenda of the Code incorporated by reference in paragraph (b) of 10 CFR 50.55a 12 months prior to the start of the 120-month interval, subject to the limitations and modifications listed in paragraph (b) of this section.

b. The SSES Unit 2 fourth ten-year interval starts on June 1, 2014. The Code edition in effect as of June 1, 2014 was the OM-2004 Edition through OMb-2006 Addenda which was endorsed in the Federal Register on June 21, 2011 (Vol. 76, No. 119).

1.2.1 (continued)

2.0 REFERENCES AND COMMITMENTS

2.1 Performance References

2.1.1 None

2.2 Developmental References

2.2.1 OM-2004 Edition through OMb-2006 Addenda

2.2.2 OM Code ISTC-3500, 1998 Edition through the 2006 Addenda

2.2.3 NRC Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance

2.2.4 NRC Generic Letter 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves

2.2.5 10 CFR 50 Appendix B to the IST Pump and Valve Program

2.2.6 ISTC-3700, Valve Position Verification

2.2.7 ISTC-3500, Valve Testing Requirements

2.3 Commitments

2.3.1 None

3.0 DEFINITIONS

3.1.1 None

4.0 RESPONSIBILITIES

4.1.1 None

NOTE
Any Limitations and modifications applicable to the OM-2004 Edition through OMb- 2006 Addenda are detailed in the following as applicable.

5.0 INSTRUCTIONS

5.1 Quality Assurance

5.1.1 When applying editions and addenda of the OM Code, the requirements of NQA- 1, "Quality Assurance Requirements for Nuclear Facilities," 1979 Addenda, are acceptable as permitted by ISTA 1.4 of the 1995 Edition through 1997 Addenda or ISTA-1500 of the 1998 Edition through the 2006 Addenda of the OM Code, provided the licensee uses its 10 CFR part 50, Appendix B, quality assurance program in conjunction with the OM Code requirements. Commitments contained in the licensee's quality assurance program description that are more stringent than those contained in NQA-1 govern OM Code activities. If NQA-1 and the OM Code do not address the commitments contained in the licensee's Appendix B quality assurance program description, the commitments must be applied to OM Code activities.

5.1.2 SSES applies the requirements of 10 CFR 50 Appendix B to the IST Pump and Valve Program.

5.2 Testing Scope and Testing

5.2.1 Motor-Operated Valve Testing

a. Licensees shall comply with the provisions for testing motor-operated valves in OM Code ISTC 4.2, 1995 Edition with the 1996 and 1997 Addenda, or ISTC- 3500, 1998 Edition through the 2006 Addenda of the OM Code, and shall establish a program to ensure that motor-operated valves continue to be capable of performing their design basis safety functions.

b. SSES complies with the motor-operated valve testing in OM Code ISTC-3500, 1998 Edition through the 2006 Addenda and has a program to respond to the requirements of NRC Generic Letter 89-10, "Safety-Related Motor-Operated Valve Testing and Surveillance" up to and including Supplement 7 and Generic Letter 96-05, "Periodic Verification of Design-Basis Capability of Safety-Related Motor-Operated Valves.

5.2.2 Appendix II – Check Valve Condition Monitoring

5.2.2 (continued)

a. As an alternative to the requirements of paragraphs ISTC-3510, ISTC-3520, ISTC-3530, ISTC-3550, and ISTC-5221, SSES has established a Check Valve Condition Monitoring (CVCM) Program per ISTC-5222. The purpose of this program is to both **(a)** improve check valve performance and to **(b)** optimize testing, examination, and preventive maintenance activities in order to maintain the continued acceptable performance of a select group of check valves. SSES may implement this program on a valve or a group of similar valves basis.

b. Examples of candidates for (a) improved valve performance are check valves that:

- That have an unusually high failure rate during Inservice Testing or operations
- Cannot be exercised under normal operating conditions or during shutdown
- Exhibit unusual, abnormal, or unexpected behavior during exercising or operation
- The Owner elects to monitor for improved valve performance

c. Examples of candidates for (b) optimization of testing, examination, and preventive maintenance activities are check valves with documented acceptable performance that:

- Have had their performance improved under the Check Valve Condition Monitoring Program
- Cannot be exercised or are not readily exercised during normal operating conditions or during shutdowns
- Can only be disassembled and examined
- The Owner elects to optimize all the associated activities of the valve or valve group in a consolidated program

d. The program shall be implemented in accordance with Appendix II, "Check Valve Condition Monitoring Program", of OM Code-2004 and NDAP-QA-0425. Site implementing procedures which perform the specified tests are identified in the individual Check Valve Condition Monitoring (CVCM) Program Plans.

e. If the Appendix II CVCM Program for a valve or group of valves is discontinued then the requirements of ISTC-3510, ISTC-3520, ISTC-3530, ISTC-3550, and ISTC-5221 shall be implemented.

5.2.3 Manual Valves

a. Manual valves must be exercised on a 2-year interval in accordance with ISTC- 5210 which states manual valve testing shall be in accordance with ISTC-3500. If a valve fails to exhibit the required change of obturator position, the valve shall be immediately declared inoperable. Valves equipped with remote position indication shall be tested in accordance with ISTC-3700.

5.2.4 Testing Scope:

a. Pump Testing:

(1) The scope of pump testing is to assess the operational readiness of certain ASME Class 1, 2, and 3 centrifugal and positive displacement pumps, provided with an emergency power source, that are required to perform a specific function in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident.

b. Pump Testing Exclusions:

(1) Exclusions are allowed per ISTB-1200, and include the following:

- Drivers, except where the pump and driver form an integral unit and the pump bearings are in the driver
- Pumps that are supplied with emergency power solely for operating convenience
- Skid-mounted pumps that are tested as part of the major component and are justified by the Owner to be adequately tested

c. Valve Testing:

(1) The scope of valve testing is to assess the operational readiness of certain active and passive ASME Class 1, 2, and 3 valves, that are required to perform a specific function in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident.

5.2.4 (continued)

d. Pressure Relief Valve Testing:

(1) The scope of pressure relief valve testing are those ASME Class 1, 2, and 3 pressure relief devices included in ASME Boiler & Pressure Vessel Code Section III for protecting systems or portions of systems, including their actuating and position indicating system, that are required to perform a specific function in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident.

e. Exclusions:

(1) Excluded from Code testing, provided they are not required to perform a specific function as specified above are:

- Valves used only for operating convenience such as vent, drain, instrument, and test valves
- Valves used only for system control, such as pressure regulating valves
- Valves used only for system or component maintenance
- Skid-mounted valves are excluded from testing in accordance with ISTC, provided they are tested as part of the major component and are justified to be adequately tested
- External control and protection systems responsible for sensing plant conditions and providing signals for valve operation are excluded from the requirements of ISTC
- Category A and Category B safety and relief valves are excluded from the requirements of ISTC-3700, Valve Position Verification and ISTC-3500, Valve Testing Requirements
- Non-reclosing pressure relief devices (rupture disks) used in BWR Scram Accumulators are excluded from the requirements of ISTC

5.2.5 Technical Positions

a. Categories of Valves (ISTC-1300)

5.2.5a (continued)

(1) Valves within the scope of the Code shall be placed in one or more of the following categories. When one or more distinguishing category characteristic is applicable, all requirements of each of the individual categories are applicable, although duplication or repetition of common testing requirements is not necessary.

- Category A: valves for which seat leakage is limited to specific maximum amount in the closed position for fulfillment of their required function(s), as specified in ISTA-1100 (required to perform a specific function in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident).

- Category B: valves for which seat leakage in the close position is inconsequential for fulfillment of the required function(s) as specified in ISTA-1100 (shown above).

- Category C: valves that are self-actuating in response to some system characteristic, such as pressure (relief valves) or flow direction (check valves) for fulfillment of the required function(s), as specified in ISTA-1100 (shown above).

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

(2) The SSES position is that if an individual valve has a specific seat leakage limit, it is a Category A valve. If the leakage of a valve is limited to overall system leakage, or a limit to preclude diversion of flow, Category A does not apply, although the valve is tested for the capability to close to prevent such system leakage or diversion of flow.

(3) This position is supported by two Task Interface Agreements (TIA) that were performed for NRC Regional Offices by the NRC Headquarters staff. The first is Region I TIA, dated July 5, 1994, for Potential Secondary Bypass Leakage, Susquehanna Steam Electric Station TAAC Number M-86276. The second is Task Interface Agreement 94-22, dated May 15, 1995 for Testing Emergency Core Cooling Suction-Side Components, H. B. Robinson Steam Electric Plant, Unit No. 2 (TC No. M89905)

5.2.6 Pump Categories (ISTB-1300):

a. All pumps within the scope of ISTA-1100 (pumps that are required to perform a specific function in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident) and ISTB-1100 (certain centrifugal and positive displacement pumps that have emergency power sources) shall be categorized as either a Group A or Group B pump.

(1) Pumps that are operated continuously or routinely during normal operation, cold shutdown, or refueling operations.

At SSES Unit 2, the following pumps are considered Group A pumps:

- 2P212A Residual Heat Removal Pump A
- 2P212B Residual Heat Removal Pump B
- 2P212C Residual Heat Removal Pump C
- 2P212D Residual Heat Removal Pump D
- 2P516A RHR Service Water Pump A
- 2P516B RHR Service Water Pump B

(2) Group B: Pumps in standby systems that are not operated routinely except for testing.

At SSES Unit 2, the following pumps are considered Group B pumps:

- 2P203 Reactor Core Isolation Cooling Pump
- 2P204/209 High Pressure Coolant Injection Main Pump/Booster Pump
- 2P206A Core Spray Pump A
- 2P206B Core Spray Pump B
- 2P206C Core Spray Pump C
- 2P206D Core Spray Pump D
- 2P208A Standby Liquid Control Pump A
- 2P208B Standby Liquid Control Pump B

5.2.6 (continued)

b. Pump Design Flow Rate:

(1) Pump design flow at SSES Unit 2 is based on one of the following

(a) Pump flow as determined by engineering analysis.

(b) Licensing basis flow as determined by UFSAR or Technical Specifications.

(c) Flow corresponding to the pump best efficiency point (BEP) on the manufacturer's pump curve.

5.2.7 Active Valve:

a. Active valves are valves that are required to change obturator position to accomplish their safety function. In accordance with NUREG-1482, Section 2.4.2, a valve need not be considered active if it is only temporarily removed from service or from its safety position for a short period of time, such as manually opening a sample valve to take a sample while maintaining administrative control over the valve.

5.2.8 Passive Valve:

a. Passive valves that have remote position indication or that are classified as Category A are included in the IST Program with the appropriate test requirements. Valves that are locked or de-energized in their required positions, or are only repositioned from their safety position for performance of surveillance procedures are considered passive. Check valves that have flow secured by an in-line closed manual valve are considered passive.

5.2.9 Skid-mounted components:

a. ASME OM Code 2004 through 2006 Addenda, ISTA-2000, Definitions, defines skid-mounted pumps and valves as, "pumps and valves integral to or that support operation of major components, even though these pumps and valves 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:

- Diesel fuel oil pumps and valves
- Steam admission and trip throttle valves for high-pressure coolant injection turbine-driven pumps
- Solenoid-operated valves provided to control an air-operated valve

5.2.9 (continued)

b. 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.

c. The High Pressure Coolant Injection Turbine Stop Valve (FV25612) has a design closure stroke time of 0.5 seconds. This rapid closure is accomplished by spring force. As a rapid acting valve, closure of this valve cannot be timed accurately nor trended from test-to-test. In contrast, opening is accomplished hydraulically by oil pressure working against spring force. The valve has no independent manual control, but rather is controlled only by HPCI turbine oil pressure. The turbine stop valve is a skid-mounted component of the HPCI turbine and structurally integrated with the turbine.

d. The Reactor Core Isolation Cooling Turbine Stop Valve (HV25012) is also a rapid acting valve. Closure is accomplished by spring force. The turbine stop valve is a skid-mounted component of the RCIC turbine.

e. Control Rod Drive Valves (247114, 247115, 247138, XV247126, XV247127) are located on the hydraulic control units for the 185 control rod drives. They perform the active safety function of rapidly inserting the control rods into the reactor core, upon receipt of a reactor scram signal from the reactor protection system. These valves will be tested as part of the control rod insertion times subject to the conservative limitations of Technical Specification Surveillance Requirements 3.1.4.1, 3.1.4.2, 3.1.4.3 and 3.1.4.4.

f. SSES considers these components to be skid mounted and adequately tested with the major piece of equipment in accordance with ISTB-1200(c).

g. Other skid-mounted components:

- High Pressure Coolant Injection Turbine Stop Valve (FV25612)
- Reactor Core Isolation Cooling Turbine Stop Valve (HV25012)
- Control Rod Drive Scram Discharge Riser Check Valves (247114)
- Control Rod Drive Charging Water Header Check Valves (247115)
- Control Rod Drive Cooling Water Riser Check Valves (247138)
- Control Rod Drive Inlet Scram Valve (XV247126)
- Control Rod Drive Outlet Scram Valve (XV247127)

5.2.10 Fail Safe Testing:

a. For those valves in the SSES Unit 2 Valve Table that are designated with a fail- safe test, the fail-safe test will be conducted using the valve control switch in conjunction with the stroke time testing of the valve. Utilizing the valve control switch is equivalent to removing control power fuses, opening power supply breakers, or isolating air supplies. Verifying the fail-safe function of valves via normal valve operation is sufficient to demonstrate proper valve operability on loss of electrical power or loss of air.

b. The MSIV actuator is different from most air to open, spring to close valves. In the typical air to open, spring to close valve, a loss of air caused by de-energizing the solenoid valve, causes the air to exhaust and the spring to close the valve. With the MSIVs, de-energizing the solenoid causes the air under the cylinder to exhaust and the air is redirected to the top of the cylinder. The MSIVs will be fail- safe tested by using a springs-only closure.

5.2.11 Check Valve Testing:

a. Per ISTC-5221(a)(3), 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 at least the partially open position (the partially open position should correspond to the normal or expected system flow), and verify that on cessation or reversal of flow, the obturator has traveled to the seat.

b. Many of the check valves in the IST Program have flow through them during normal power operations. ISTC-3522, Category C Check Valves, subsection ISTC-3522(a) states, "During operation at power, each check valve shall be exercised or examined in a manner that verifies obturator travel by using the methods in ISTC-5221. Each check valve exercise test shall include open and close tests. Open and close tests need only be performed at the interval when it is practicable to perform both tests. Test order (e.g., whether the open test precedes the close test) shall be determined by PPL. Open and close tests are not required to be performed at the same time if they are both performed within the same interval.

c. PPL takes the position that open and close tests are not required to be performed at the same time. In many cases the normal power operations function of the check valve is to be open to support the system functions and the valve only has a closed safety function.

5.2.11 (continued)

d. The following check valves have only a closed safety function:

- HV241F032A/B Feedwater Supply to Reactor Stop Check Valves
- 241F039A/B Reactor Water Cleanup Return Check Valves
- 211165A/B Emergency Service Water Keep Fill Check Valves
- 251F089A/B Residual Heat Removal Keep Fill Check Valves
- 251F0909A/B Residual Heat Removal Keep Fill Check Valves
- 249015 Reactor Core Isolation Cooling Keep Fill Check Valve
- 255012 High Pressure Core Injection Keep Fill Check Valve
- 243F013A/B Reactor Recirc Pump Seal Injection Check Valves
- XV243F017A/B Reactor Recirc Pump Seal Injection Check Valves
- 246027/246028 Control Rod Drive Seismic Island Check Valves
- 251136 Residual Heat Removal Condensate Transfer Outboard SCBL Check Valve
- 251137 Residual Heat Removal Condensate Transfer Inboard SCBL Check Valve

e. These check valves have flow through them during normal plant operations. If the check valve is not open to pass flow, alarms or indications would identify the problem to an Operator who is trained to respond to such situations and take appropriate actions. Condition Reports are written for abnormal plant conditions attributable to conditions such as check valve failures. The observation and analysis of the non-safety open position of these check valves is satisfied by operator reviews and no specific surveillance procedure will be developed to document the non-safety related open function of these check valves.

f. Verifying that the system is full is also an industry accepted means for verifying that keepfill check valves are capable of opening to provide flow when necessary.

g. The following check valves have both open and close safety functions:

- 241F010A/B Feedwater Supply to Reactor Check Valve
- 241818A/B Feedwater Supply to Reactor Check Valve

5.2.11 (continued)

h. ISTC-5221(a)(1) (of the 2004 Edition through the 2006 Addenda of the ASME OM Code) states that check valves that have a safety function in both the open and close direction shall be exercised by initiating flow and observing that the obturator has traveled to either the full open or to the position required to perform its intended function(s) and verify that on cessation or reversal of flow, the obturator has traveled to the seat.

i. These check valves are open during normal plant operation to supply feedwater flow to the reactor and have an open safety function during an accident to allow Reactor Core Isolation Cooling (RCIC) flow (Feedwater Loop A) or High Pressure Coolant Injection (HPCI) flow (Feedwater Loop B) to the reactor. The maximum required accident flow for RCIC is 600 gpm and for HPCI is 5,000 gpm. During normal plant operation, the feedwater flow through these valves is approximately 16,000 gpm in each loop at 100% reactor power.

5.3 Inservice Testing Plans For Pumps

5.3.1 The pumps included in the SSES Unit 2 Inservice Testing Program are listed on the attached Pump Table. Pumps that are common to both Unit 1 and 2 are included in the SSES Unit 1 Inservice Testing Program. The column headings for the Pump Table are delineated below with an explanation of the content of each column.

a. System The number designating the system in which the pump is located

b. Pump Number Unique NIMS component identification number

c. Noun Name Unique NIMS noun name for the pumps

d. P&ID Coordinate P&ID number and coordinates on the P&ID for pump drawing location

e. ASME Class ASME Code Class of the pump. "S" signifies that the pump is Safety Related but Non-ASME Code Class

f. Orientation Designates the orientation of the axis of the impeller. "H" is horizontal and "V" is vertical

g. Pump Type/Group Indicated whether the pump is centrifugal or positive displacement (type). The Group designation, or Category, "A" or "B" indicates the category, which is required/defined in ISTB-1300 and ISTB-2000, of the of the 2004 Edition through the 2006 Addenda of the ASME OM Code. Group A pumps are pumps that are operated continuously or routinely during normal operations, cold shutdown, or refueling operations. Group B pumps are pumps in standby systems that are not operated routinely except for testing.

5.3.1 (continued)

h. Driver Type/Speed Type of driver associated with the pump (motor or steam turbine), and whether the pump has a fixed speed or is variable speed.

- M Motor Driven
- ST Steam Turbine Driven
- F Fixed Speed
- V Variable Speed

i. Group/Comprehensive Test Parameters Required/Perform:

- DP Differential pressure across the pump
- Q Pump flow rate
- V_V Vibration velocity amplitude
- S Rotational speed (required for variable speed pumps only)
- P Discharge pressure (required for positive displacement pumps)

j. Group/Comprehensive Test Frequency

- M3 Once every 92 days (quarterly)
- R Once every refueling outage
- 2Y Once every two years

k. Relief Requests Relief Requests (RR) for pumps that cannot be tested per Code requirements. The appropriate RR number is provided.

l. Remarks Any appropriate reference or explanatory information.

5.3.2 The pumps included in the SSES Unit 2 Inservice Testing Program are listed on the attached Pump Table. Pumps that are common to both Unit 1 and 2 are included in the SSES Unit 1 Inservice Testing Program. The column headings for the Pump Table are delineated below with an explanation of the content of each column.

- System The number designating the system in which the pump is located
- Pump Number Unique NIMS component identification number
- Noun Name Unique NIMS noun name for the pumps

5.3.2 (continued)

- P&ID Coordinate P&ID number and coordinates on the P&ID for pump drawing location
- ASME Class ASME Code Class of the pump. "S" signifies that the pump is Safety Related but Non-ASME Code Class
- Orientation Designates the orientation of the axis of the impeller. "H" is horizontal and "V" is vertical
- Pump Type/Group Indicated whether the pump is centrifugal or positive displacement (type). The Group designation, or Category, "A" or "B" indicates the category, which is required/defined in ISTB-1300 and ISTB-2000, of the of the 2004 Edition through the 2006 Addenda of the ASME OM Code. Group A pumps are pumps that are operated continuously or routinely during normal operations, cold shutdown, or refueling operations. Group B pumps are pumps in standby systems that are not operated routinely except for testing

a. Driver Type/Speed Type of driver associated with the pump (motor or steam turbine), and whether the pump has a fixed speed or is variable speed.

- M Motor Driven
- ST Steam Turbine Driven
- F Fixed Speed
- V Variable Speed

b. Group/Comprehensive Test Parameters Required/Performed:

- DP Differential pressure across the pump
- Q Pump flow rate
- V_V Vibration velocity amplitude
- S Rotational speed (required for variable speed pumps only)
- P Discharge pressure (required for positive displacement pumps)

5.3.2b (continued)

c. Group/Comprehensive Test Frequency

- M3 Once every 92 days (quarterly)
- R Once every refueling outage
- 2Y Once every two years

d. Relief Requests Relief Requests (RR) for pumps that cannot be tested per Code requirements. The appropriate RR number is provided.

e. Remarks Any appropriate reference or explanatory information.

5.4 Inservice Testing Plans for Valves

5.4.1 The valves included in the SSES Unit 2 Inservice Testing Program are listed on the attached Valve Tables. Valves that are common to both Unit 1 and 2 are included in the SSES Unit 1 Inservice Testing Program. The column headings for the Valve Tables are delineated below with an explanation of the content of each column.

- Valve Number Unique NIMS component identification number
- P&ID/Coordinate P&ID coordinates at which each valve is located
- ASME Class ASME Code Class of the valve. "S" signifies that the valve is a safety-related non-ASME Code Class valve
- ASME Category Valve category as defined by ASME OM Code, 2004 Edition through 2006 Addenda, ISTC-1300
- Category A Valves for which seat leakage is limited to a specific maximum amount in the closed position for fulfillment of their safety function(s)
- Category B Valves for which seat leakage in the closed position is inconsequential for fulfillment of their safety function(s)
- Category C Valves which are self-actuating in response to some system characteristic such as pressure (safety and relief valves) or flow direction (check valves) for fulfillment their safety function(s)
- Category D Valves which are actuated by an energy source capable of only one operation, such as rupture discs or explosive- actuated valves
- Active/Passive Designated by "A" for active and "P" for passive
- Active Obturator is required to change position to accomplish safety function(s)
- Passive Maintain position and not required to change position to accomplish safety function(s)
- Valve Size Size of valve in inches

5.4.2 Valve Type Type of valve according to the following abbreviations:

- BA Ball
- BF Butterfly
- CK Check
- GT Gate

5.4.2 (continued)

- GB Globe
- PL Plug
- RD Rupture Disk
- RV Relief
- SC Stop Check
- XC Excess Flow Check

5.4.3 Actuator Type abbreviations: Type of actuator for each valve according to following

- AO Air Operator
- EX Explosive
- HO Hydraulic Operator
- MA Manual
- MO Motor Operator
- SA Self Actuated
- SO Solenoid Operator

5.4.4 Safety Position function: Position the valve is required to be in to perform its safety

- O Open
- C Closed
- O/C Open and Closed
- LO Locked Open
- LC Locked Closed

5.4.5 Tests Required/Performed:

- FSO Full Stroke Open
- FSC Full Stroke Closed

5.4.5 (continued)

- PSO — Part Stroke Open
- STO — Stroke Time Open
- STC — Stroke Time Closed
- RPI — Remote Position Indication
- FTO — Fail-safe Test Open
- FTC — Fail-safe Test Closed
- D&E — Disassembly & Examine
- RVT — Relief Valve Test
- EXT — Explosive Valve Test
- LTJ — Seat leakage test required by 10 CFR 50 Appendix J
- LTO — Seat leakage test required for other Category A Valves by OM Code
- LTP — Seat leakage test required for Pressure Isolation Valves by OM Code

5.4.6 Test Frequency:

- M1 — Once every 31 days (Monthly)
- M3 — Once every 92 days (Quarterly)
- M6 — Once every 184 days (Semiannually)
- R — Once every refueling outage (for check valves, in accordance with check valve sample disassembly and examination program)
- C — Continuous during plant operations
- CS — Once every cold shutdown but not more frequent than once every 92 days
- OC — Once per operating cycle or operating cycle combination in accordance with check valve sample disassembly and examination program
- AJ — In accordance with the Owner's 10CFR50 Appendix J Program (ISTC-3620)

5.4.6 (continued)

- 2Y Once every two years
- S2 Explosive change sample (ISTC-5260)
- 4Y Once every four years
- 5Y Class 1 pressure relief valves are required to be tested at least once every 5 years with a minimum of 20% of the valves tested within any 24 months. Class 1, 2, & 3 non- reclosing pressure relief devices are to be replaced every 5 years
- 6Y Class 1 pressure relief valves are tested at least once every 6 years with a minimum of 20% of the valves tested within any 24 months. (Relief Request 2RR03)
- 10Y Class 2 & 3 pressure relief valves are required to be tested at least once every 10 years with a minimum of 20% of the valves tested within any 48 months. Excess flow check valves are tested on a sampling basis in accordance with Technical Specification Surveillance Requirement SR 3.6.1.3.9 over a 10-year interval
- CM CM indicates that the check valve is included in the SSES IST Check Valve Condition Monitoring Program. These check valves are tested on a frequency determined by NDAP-QA-0425 and the SSES Check Valve Condition Monitoring Program Basis Document

5.4.7 CJ/RJ Justification Cold Shutdown Justification (CJ) and Refueling Outage Justification (RJ) for valves that cannot be tested at the frequency specified in the Code. The appropriate CJ or RJ number is provided are provided in Attachments C and D.

5.4.8 Relief Requests Relief Requests (RR) for valves that cannot be tested per Code requirements. The appropriate RR number is provided in Attachment E.

5.4.9 Remarks Any explanatory notes required.

5.5 SSES Unit 2 Drawings

PPL DWG NUMBER	AE DWG NUMBER	SHEET	TITLE
E106205	M-100	1-4	P&ID Legend & Symbols
E162638	M-2109	2	P&ID Service Water
E162639	M-2110	1	P&ID Service Water
E162640	M-2111	1-2	P&ID Emergency Service Water System
E162641	M-2112	1	P&ID RHR Service Water System
E162642	M-2113	1	P&ID Reactor Building Closed Cooling Water
E162798	M-2126	1-2	P&ID Containment Instrument Gas
E105941	M-2141	1-2	P&ID Nuclear Boiler
E105942	M-2142	1-2	P&ID Nuclear Boiler Vessel Instrumentation
E105943	M-2143	1-2	P&ID Reactor Recirculation
E105944	M-2144	1-2	P&ID Reactor Water Cleanup
E105946	M-2146	1	P&ID Control Rod Drive Part A
E105947	M-2147	1-2	P&ID Control Rod Drive Part B
E105948	M-2148	1	P&ID Standby Liquid Control
E105949	M-2149	1	P&ID Reactor Core Isolation Cooling
E105950	M-2150	1	RCIC Turbine-Pump
E105951	M-2151	1-4	P&ID Residual Heat Removal
E105952	M-2152	1	P&ID Core Spray
E105953	M-2153	1	P&ID Fuel Pool Cooling & Clean-Up
E105955	M-2155	1	P&ID High Pressure Coolant Injection
E105956	M-2156	1-2	P&ID HPCITurbine-Pump
E105957	M-2157	1-7	P&ID Containment Atmos. Control
E105961	M-2161	1	P&ID Liquid Radwaste Collection
E177255	M-2172	1	P&ID Emergency Switchgear Room Cooling System
E105987	M-2187	2	P&ID Reactor Building Chilled Water

5.6 Testing Justifications

5.6.1 Cold Shutdown Justifications (CJ) and Refueling Outage Justifications (RJ) for valves that cannot be tested at the frequency specified in the Code are attached respectively in Attachments C and D.

5.7 Relief Requests

5.7.1 Relief Requests (RR) for pumps and valves that cannot be tested per Code requirements are contained in Attachment E, Relief Requests.

END of Instructions

6.0 RECORDS

6.1.1 There are no Records generated as a result of this document.

Attachment A, PUMP TABLE-SUMMARY LISTING

SYSTEM: 216 **SYSTEM DESCRIPTION:** Residual Heat Removal Service Water

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P506A	Residual Heat Removal Service Water	M-2112 Sh. 1 / C-1	3	Vertical-Centrifugal / A	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	dP	2Y	CAT A CV-
						No	Q	2Y	CAT A CV-
						No	V	2Y	CAT A CV-
						No	dP	M3	CAT A CV-
						No	Q	M3	CAT A CV-
						No	V	M3	CAT A CV-
2P506B	Residual Heat Removal Service Water Pump B	M-2112 Sh. 1 / G-1	3	Vertical-Centrifugal / A	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	dP	2Y	CAT A CV-
						No	Q	2Y	CAT A CV-
						No	V	2Y	CAT A CV-
						No	dP	M3	CAT A CV-
						No	Q	M3	CAT A CV-
						No	V	M3	CAT A CV-

Attachment A, PUMP TABLE-SUMMARY LISTING, Continued

SYSTEM: 249 **SYSTEM DESCRIPTION:** Residual Heat Removal

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P202A	Residual Heat Removal Pump A	M-2151 Sh. 1 / G-4	2	Vertical-Centrifugal / A	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	dP	2Y	CAT A CV-HSP
						No	Q	2Y	CAT A CV-HSP
						No	V	2Y	CAT A CV-HSP
						No	dP	M3	CAT A CV-HSP

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P202A	Residual Heat Removal Pump A	M-2151 Sh. 1 / G-4	2	Vertical-Centrifugal / A	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	Q	M3	CAT A CV-HSP
						No	V	M3	CAT A CV-HSP
2P202B	Residual Heat Removal Pump B	M-2151 Sh. 3 / G-6	2	Vertical-Centrifugal / A	Motor / Fixed	No			
						EXEMPT TEST	**. EST**	**FREQ**	**NOTES**
						No	dP	2Y	CAT A CV-HSP
						No	Q	2Y	CAT A CV-HSP
						No	V	2Y	CAT A CV-HSP
						No	dP	M3	CAT A CV-HSP
						No	Q	M3	CAT A CV-HSP
						No	V	M3	CAT A CV-HSP

Attachment A, PUMP TABLE-SUMMARY LISTING, Continued

SYSTEM: 249 **SYSTEM DESCRIPTION:** Residual Heat Removal

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P202C	Residual Heat Removal Pump C	M-2151 Sh. 1 / H-3	2	Vertical-Centrifugal / A	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	dP	2Y	CAT A CV-HSP
						No	Q	2Y	CAT A CV-HSP
						No	V	2Y	CAT A CV-HSP
						No	dP	M3	CAT A CV-HSP
						No	Q	M3	CAT A CV-HSP
						No	V	M3	CAT A CV-HSP
2P202D	Residual Heat Removal Pump D	M-2151 Sh. 3 / H-7	2	Vertical-Centrifugal / A	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	dP	2Y	CAT A CV-HSP
						No	Q	2Y	CAT A CV-HSP
						No	V	2Y	CAT A CV-HSP
2P202D	Residual Heat Removal Pump D	M-2151 Sh. 3 / H-7	2	Vertical-Centrifugal / A	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	dP	M3	CAT A CV-HSP
						No	Q	M3	CAT A CV-HSP
						No	V	M3	CAT A CV-HSP

Attachment A, PUMP TABLE-SUMMARY LISTING, Continued

SYSTEM: 250 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P203	Reactor Core Isolation Cooling Pump	M-2150 Sh. 1 / D-5	2	Horizontal-Centrifugal / B	Steam Turbine / Fixed	No			
						EXEMPT TEST	TEST	FREQ	NOTES
						No	dP	2Y	CAT B CH-HSP-
						No	Q	2Y	CAT B CH-HSP-
						No	V	2Y	CAT B CH-HSP-
						No	dP	M3	CAT B CH-HSP-
						No	Q	M3	CAT B CH-HSP-
						No	S	2Y	CAT B CH-HSP-
						No	S	M3	CAT B CH-HSP-

SYSTEM: 251 **SYSTEM DESCRIPTION:** Residual Heat Removal

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P206A	Reactor Core Spray Pump A	M-2153 Sh. 1 / G-5	2	Vertical-Centrifugal / B	Motor / Fixed	No			
						EXEMPT TEST	TEST	FREQ	NOTES
						No	dP	2Y	CAT B CV-HSP
						No	Q	2Y	CAT B CV-HSP

Attachment A, PUMP TABLE-SUMMARY LISTING, Continued

SYSTEM: 251 **SYSTEM DESCRIPTION:** Residual Heat Removal

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P206A	Reactor Core Spray Pump A	M-2153 Sh. 1 / G-5	2	Vertical-Centrifugal / B	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	V	2Y	CAT B CV-HSP
						No	dP	M3	CAT B CV-HSP
						No	Q	M3	CAT B CV-HSP
2P206B	Reactor Core Spray Pump B	M-2153 Sh. 1 / G-7	2	Vertical-Centrifugal / B	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	dP	2Y	CAT B CV-HSP
						No	Q	2Y	CAT B CV-HSP
						No	V	2Y	CAT B CV-HSP
						No	dP	M3	CAT B CV-HSP
						No	Q	M3	CAT B CV-HSP
2P206C	Reactor Core Spray Pump C	M-2153 Sh. 1 / G-6	2	Vertical-Centrifugal / B	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	dP	2Y	CAT B CV-HSP
						No	Q	2Y	CAT B CV-HSP
						No	V	2Y	CAT B CV-HSP
						No	dP	M3	CAT B CV-HSP
						No	Q	M3	CAT B CV-HSP

Attachment A, PUMP TABLE-SUMMARY LISTING, Continued

SYSTEM: 251 **SYSTEM DESCRIPTION:** Residual Heat Removal

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P206D	Reactor Core Spray Pump D	M-2153 Sh. 1 / G-7	2	Vertical-Centrifugal / B	Motor / Fixed	No			
						EXEMPT TEST	TEST	FREQ	NOTES
						No	dP	2Y	CAT B CV-HSP
						No	Q	2Y	CAT B CV-HSP
						No	V	2Y	CAT B CV-HSP
						No	dP	M3	CAT B CV-HSP
2P206D	Reactor Core Spray Pump D	M-2153 Sh. 1 / G-7	2	Vertical-Centrifugal / B	Motor / Fixed	No			
						EXEMPT TEST	TEST	FREQ	NOTES
						No	Q	M3	CAT B CV-HSP

SYSTEM: 252 **SYSTEM DESCRIPTION:** High Pressure Core Spray

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P204/209	HPCI Turbine Driven Pump	M-2156 Sh. 1 / C-5	2	Horizontal-Centrifugal / B	Steam Turbine / Fixed	No			
						EXEMPT TEST	TEST	FREQ	NOTES
						No	dP	2Y	CAT B CH-HSP-VS
						No	Q	2Y	CAT B CH-HSP-VS
						No	V	2Y	CAT B CH-HSP-VS
						No	dP	M3	CAT B CH-HSP-VS
						No	Q	M3	CAT B CH-HSP-VS
						No	S	2Y	CAT B CH-HSP-VS
						No	S	M3	CAT B CH-HSP-VS

Attachment A, PUMP TABLE-SUMMARY LISTING, Continued

SYSTEM: 253 **SYSTEM DESCRIPTION:** Standby Liquid Control

PUMP NO.	DESCRIPTION	P & ID / Coord	CLASS	TYPE / GROUP	DRIVER / SPEED	COMP. EXEMPT			
2P208A	Standby Liquid Control Pump A	M-2148 Sh. 1 / D-5	2	Horizontal-Positive Displacement / B	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	Q	2Y	CAT B HPD-LSP
						No	V	2Y	CAT B HPD-LSP
2P208B	Standby Liquid Control Pump B	M-2148 Sh. 1 / F-5	2	Horizontal-Positive Displacement / B	Motor / Fixed	No			
						EXEMPT TEST	**TEST**	**FREQ**	**NOTES**
						No	Q	2Y	CAT B HPD-LSP
						No	V	2Y	CAT B HPD-LSP
						No	Q	M3	CAT B HPD-LSP
						No	Pd	2Y	CAT B HPD-LSP

Attachment B, VALVE TABLE-SUMMARY LISTING

SYSTEM: 14 P & ID: M-2113 **SYSTEM DESCRIPTION:** REACTOR BUILDING CLOSED COOLING WATER

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV21313	C-1	4	GT	MO	2	A	Active	O	C	N/A	
RBCCW CONTN RETURN OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GT MO A PI SCJ
				No	LTJ	J					A GT MO A PI SCJ
				No	FSC	CS					2CSJ-02
				No	STC	CS					2CSJ-02
HV21314	C-3	4	GT	MO	2	A	Active	O	C	N/A	
RBCCW CONTN SUPPLY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-02
				No	FSC	CS					2CSJ-02
				No	LTJ	J					A GT MO A PI SCJ
				No	RPI	2Y					A GT MO A PI SCJ

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 14 P & ID: M-2113 **SYSTEM DESCRIPTION:** REACTOR BUILDING CLOSED COOLING WATER

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV21345	C-1	4	GT	MO	2	A	Active	O	C	N/A	
RBCCW IB CONTN ISO MOV RRP A/B SEAL & MTR OIL CLR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GT MO A PI SCJ
				No	LTJ	J					A GT MO A PI SCJ
				No	FSC	CS					2CSJ-02
				No	STC	CS					2CSJ-02

HV21346	C-3	4	GT	MO	2	A	Active	O	C	N/A	
RBCCW IB CONTN ISO MOV RRP A/B SEAL & MTR OIL CLR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-02

HV21346	C-3	4	GT	MO	2	A	Active	O	C	N/A	
RBCCW IB CONTN ISO MOV RRP A/B SEAL & MTR OIL CLR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CS					2CSJ-02
				No	LTJ	J					A GT MO A PI SCJ
				No	RPI	2Y					A GT MO A PI SCJ

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 16 P & ID: M-2112 Sh. 1 **SYSTEM DESCRIPTION:** Residual Heat Removal Service Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
212001	C-2	20	CK	SA	3	C	Active	SYS	O/C	N/A	
RHR SW PUMP DISCHARGE CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					C CK SA A SOC
				No	FSO	M3					C CK SA A SOC
212003	G-2	20	CK	SA	3	C	Active	SYS	O/C	N/A	
RHR SW PUMP DISCHARGE CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					C CK SA A SOC
				No	FSC	M3					C CK SA A SOC
HV21210A	C-5	20	BF	MO	3	B	Active	C	O	N/A	
RHR HX A SW SUP ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B BF MO A PI SO
				No	FSO	M3					B BF MO A PI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 16 P & ID: M-2112 Sh. 1 **SYSTEM DESCRIPTION:** Residual Heat Removal Service Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		**COMP. EXEMPT**	**TYPE**	**ACTUATOR**	**CLASS**	**CATEGORY**	**ACTIVE**	**NP**	**SP**	**FP**	
HV212F073A	A-3	6	GT	MO	3	B	Active	C	C	N/A	
RHR/RHRSW LOOP A CROSSTIE VLV		No		**EXEMPT TEST**	**TEST**	**FREQ**					**NOTES**
				No	RPI	2Y					B GT MO A PI SC
				No	STC	M3					B GT MO A PI SC
				No	FSC	M3					B GT MO A PI SC
HV212F073B	E-5	6	GT	MO	3	B	Active	C	C	N/A	
RHR/RHRSW LOOP B CROSSTIE VLV		No		**EXEMPT TEST**	**TEST**	**FREQ**					**NOTES**
				No	FSC	M3					B GT MO A PI SC
				No	STC	M3					B GT MO A PI SC
				No	RPI	2Y					B GT MO A PI SC

HV212F075A	A-5	6	GT	MO	2	B	Active	C	C	N/A	
RHRSW/RHR LOOP A CROSSTIE VLV		No		**EXEMPT TEST**	**TEST**	**FREQ**					**NOTES**
				No	RPI	2Y					B GT MO A PI SC
				No	STC	M3					B GT MO A PI SC
				No	FSC	M3					B GT MO A PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 16 P & ID: M-2112 Sh. 1 **SYSTEM DESCRIPTION:** Residual Heat Removal Service Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV212F075B	E-5	6	GT	MO	2	B	Active	C	C	N/A	
RHRSW/RHR LOOP B CROSSTIE VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GT MO A PI SC
				No	STC	M3					B GT MO A PI SC
				No	RPI	2Y					B GT MO A PI SC
PSV21212A	C-7	4	RV	SA	3	C	Active	SYS	O/C	N/A	
RHRSW HEAT EXCHANGER DISCHARGE PRESS RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV21212B	G-7	4	RV	SA	3	C	Active	SYS	O/C	N/A	
RHRSW HEAT EXCHANGER DISCHARGE PRESS RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV21213A	C-7	0.75	RV	SA	3	C	Active	SYS	O/C	N/A	
RHRSW HEAT EXCHANGER A TUBE SIDE PRESS RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 16 P & ID: M-2112 Sh. 1 **SYSTEM DESCRIPTION:** Residual Heat Removal Service Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV21213B	G-7	0.75	RV	SA	3	C	Active	SYS	O/C	N/A	
RHRSW HEAT EXCHANGER B TUBE SIDE PRESS RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

SYSTEM: 25 P & ID: M-2126 Sh. 1 **SYSTEM DESCRIPTION:** Containment Instrument Gas

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
226018	A-6	1	CK	SA	2	C	Active	SYS	C	N/A	
INSTR GAS CKV TO MN STM RV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-01
				No	FSO	RO					2ROJ-01

226029	C-5	1	CK	SA	2	C	Active	SYS	C	N/A	
INSTR GAS CKV TO MN STM RV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-01
				No	FSO	RO					2ROJ-01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 25 P & ID: M-2126 Sh. 1 **SYSTEM DESCRIPTION:** Containment Instrument Gas

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
226072	G-7	1	CK	SA	2	A/C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV 12672 LLRT ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CIG-2
				No	FSO	CM					2CMP-CIG-2
				No	LTJ	J					AC CK SA A SC J CM
226074	E-8	3	CK	SA	2	A/C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV TO DISTRIBUTION HDR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					AC CK SA A SC J CM
				No	FSC	CM					2CMP-CIG-3
				No	FSO	CM					2CMP-CIG-3
226152	B-8	1	CK	SA	2	A/C	Active	SYS	O/C	N/A	
CONTN INSTR GAS CKV TO ADS MSRV K,L,N		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CIG-1
				No	FSO	CM					2CMP-CIG-1
				No	LTJ	J					AC CK SA A SOC J CM

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 25 P & ID: M-2126 Sh. 1 **SYSTEM DESCRIPTION:** Containment Instrument Gas

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
226154	A-8	1	CK	SA	2	A/C	Active	SYS	O/C	N/A	
CONTN INSTR GAS CKV TO ADS MSRV G,J,M		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					AC CK SA A SOC J CM
				No	FSC	CM					2CMP-CIG-1
				No	FSO	CM					2CMP-CIG-1
226164	H-6	1	CK	SA	2	A/C	Active	SYS	C	N/A	
I-G TO SUPP CHMBR VAC RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CIG-2
				No	FSO	CM					2CMP-CIG-2
				No	LTJ	J					AC CK SA A SC J CM
HV22603	D-9	2	GB	MO	2	A	Active	O	C	N/A	
INSTR GAS CMP IB SUCT ISO		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB MO A PI SCJ
				No	FSC	M3					A GB MO A PI SCJ
				No	STC	M3					A GB MO A PI SCJ
				No	LTJ	J					A GB MO A PI SCJ

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 25 P & ID: M-2126 Sh. 1 **SYSTEM DESCRIPTION:** Containment Instrument Gas

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV22643	B-6	1	RV	SA	2	C	Active	C	O/C	N/A	
INST GAS BOTTLES OUT HDR REL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV22644	B-5	1	RV	SA	3	C	Active	C	O/C	N/A	
INST GAS BOTTLES OUT HDR REL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV22646	C-4	1	RV	SA	3	C	Active	C	O/C	N/A	
INST GAS BOTTLES OUT HDR REL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV22648	C-5	1	RV	SA	3	C	Active	C	O/C	N/A	
INST GAS BOTTLES OUT HDR REL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 25 P & ID: M-2126 Sh. 1 **SYSTEM DESCRIPTION:** Containment Instrument Gas

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV22605	D-8	2	GB	SO	2	A	Active	O	C	C	
INST GAS COMP SUCT FROM CONT		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
SV22643	B-6	1	GB	SO	3	B	Active	C	O	O	
INST GAS BOTTLES OUT HDR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					B GB SO A FO PI SO
				No	FTO	M3					B GB SO A FO PI SO
SV22644	A-6	1	GB	SO	2	B	Active	O	C	C	
INST GAS TO MN STM REL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GB SO A FC PI SC
				No	STC	M3					B GB SO A FC PI SC
				No	FTC	M3					B GB SO A FC PI SC
				No	RPI	2Y					B GB SO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 25 P & ID: M-2126 Sh. 1 **SYSTEM DESCRIPTION:** Containment Instrument Gas

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV22648	D-4	1	GB	SO	3	B	Active	C	O	O	
INST GAS BOTTLES OUT HDR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GB SO A FO PI SO
				No	RPI	2Y					B GB SO A FO PI SO
				No	FTO	M3					B GB SO A FO PI SO
				No	FSO	M3					B GB SO A FO PI SO
SV22649	C-6	1	GB	SO	2	B	Active	O	C	C	
INST GAS TO MN STM REL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GB SO A FC PI SC
				No	FTC	M3					B GB SO A FC PI SC
				No	STC	M3					B GB SO A FC PI SC

SV22649	C-6	1	GB	SO	2	B	Active	O	C	C	
INST GAS TO MN STM REL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB SO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 25 P & ID: M-2126 Sh. 1 **SYSTEM DESCRIPTION:** Containment Instrument Gas

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV22651	E-7	3	GB	SO	2	A	Active	O	C	C	
INST GAS TO VALVES IN CONTMT		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	RPI	2Y					A GB SO A FC PI SC J
				No	FTC	CS					2CSJ-03
				No	FSC	CS					2CSJ-03
				No	STC	CS					2CSJ-03
SV22654A	A-8	1	GB	SO	2	A	Active	O	O/C	O	
I-G TO MAIN STM PSV1F013 GJM		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTO	CS					2CSJ-04
				No	FSC	CS					2CSJ-04
				No	FSO	CS					2CSJ-04
				No	LTJ	J					A GB SO A FO PISOCJ
				No	RPI	2Y					A GB SO A FO PISOCJ
				No	STC	CS					2CSJ-04
				No	STO	CS					2CSJ-04

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 25 P & ID: M-2126 Sh. 1 **SYSTEM DESCRIPTION:** *Containment Instrument Gas*

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV22654B	B-7	1	GB	SO	2	A	Active	O	O/C	O	
I-G TO MAIN STM PSV1F013KLN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTO	CS					2CSJ-04
				No	FSC	CS					2CSJ-04
				No	FSO	CS					2CSJ-04
				No	RPI	2Y					A GB SO A FO PISOCJ
				No	LTJ	J					A GB SO A FO PISOCJ
				No	STC	CS					2CSJ-04
				No	STO	CS					2CSJ-04
SV22661	G-7	1	GB	SO	2	A	Active	O	C	C	
TIP PURGE EQUIP TO TIP INDEX		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 25 P & ID: M-2126 Sh. 1 **SYSTEM DESCRIPTION:** Containment Instrument Gas

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV22671	H-6	1	GB	SO	2	A	Active	C	C	C	
I-G TO SUPP CHMBR VAC RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J

SV22671	H-6	1	GB	SO	2	A	Active	C	C	C	
I-G TO SUPP CHMBR VAC RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J

SYSTEM: 34 P & ID: M-2187 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Building Chill Water

HV28781A1	H-2	8	GT	AO	2	A	Active	O	C	C	
A CLRS CLG WTR ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT AO A FC PI SC J
				No	RPI	2Y					A GT AO A FC PI SC J
				No	STC	RO					2ROJ-16
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 34 P & ID: M-2187 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Building Chill Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV28781A2	G-2	8	GT	AO	2	A	Active	O	C	C	
A CLRS CLG WTR ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	STC	RO					2ROJ-16
				No	RPI	2Y					A GT AO A FC PI SC J
				No	LTJ	J					A GT AO A FC PI SC J

HV28781B1	D-2	8	GT	AO	2	A	Active	O	C	C	
B CLRS CLG WTR ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT AO A FC PI SC J
				No	RPI	2Y					A GT AO A FC PI SC J
				No	STC	RO					2ROJ-16
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 34 P & ID: M-2187 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Building Chill Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV28781B2	C-2	8	GT	AO	2	A	Active	O	C	C	
B CLRS CLG WTR ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	STC	RO					2ROJ-16
				No	RPI	2Y					A GT AO A FC PI SC J
				No	LTJ	J					A GT AO A FC PI SC J
HV28782A1	D-2	8	BF	AO	2	A	Active	O	C	C	
B CLRS CLG WTR IB ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	RO					2ROJ-16
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 34 P & ID: M-2187 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Building Chill Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV28782A2	C-2	8	BF	AO	2	A	Active	O	C	C	
B CLRS CLG WTR IB ISO RB CHILLED WATER RETURN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A BF AO A FC PI SC J
				No	LTJ	J					A BF AO A FC PI SC J
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	STC	RO					2ROJ-16

HV28782B1	H-2	8	BF	AO	2	A	Active	O	C	C	
A CLRS CLG WTR IB ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	RO					2ROJ-16
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 34 P & ID: M-2187 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Building Chill Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV28782B2	G-2	8	BF	AO	2	A	Active	O	C	C	
A CLRS CLG WTR IB ISO RB CHILLED WATER RETURN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A BF AO A FC PI SC J
				No	LTJ	J					A BF AO A FC PI SC J
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	STC	RO					2ROJ-16

HV28791A1	B-2	3	GT	AO	2	A	Active	O	C	C	
RRP A CLG WTR IB ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	RO					2ROJ-16
				No	LTJ	J					A GT AO A FC PI SC J
				No	RPI	2Y					A GT AO A FC PI SC J
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 34 P & ID: M-2187 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Building Chill Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV28791A2	A-2	3	GT	AO	2	A	Active	O	C	C	
RRP A CLG WTR IB ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	RPI	2Y					A GT AO A FC PI SC J
				No	LTJ	J					A GT AO A FC PI SC J
				No	STC	RO					2ROJ-16
HV28791B1	F-2	3	GT	AO	2	A	Active	O	C	C	
RRP A CLG WTR IB ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	RO					2ROJ-16
				No	LTJ	J					A GT AO A FC PI SC J
				No	RPI	2Y					A GT AO A FC PI SC J
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 34 P & ID: M-2187 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Building Chill Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV28791B2	E-2	3	GT	AO	2	A	Active	O	C	C	
RRP A CLG WTR IB ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	RPI	2Y					A GT AO A FC PI SC J
				No	LTJ	J					A GT AO A FC PI SC J
				No	STC	RO					2ROJ-16
HV28792A1	F-2	3	BF	AO	2	A	Active	O	C	C	
RRP B CLG WTR IB ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	RO					2ROJ-16
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 34 P & ID: M-2187 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Building Chill Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV28792A2	E-2	3	BF	AO	2	A	Active	O	C	C	
RRP B CLG WTR IB ISO RB CHILLED WATER RETURN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A BF AO A FC PI SC J
				No	LTJ	J					A BF AO A FC PI SC J
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	STC	RO					2ROJ-16

HV28792B1	B-2	3	BF	AO	2	A	Active	O	C	C	
RRP A CLG WTR IB ISO RB CHILLED WATER SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	RO					2ROJ-16
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 34 P & ID: M-2187 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Building Chill Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV28792B2	A-2	3	BF	AO	2	A	Active	O	C	C	
RRP A CLG WTR IB ISO RB CHILLED WATER RETURN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J
				No	FTC	RO					2ROJ-16
				No	FSC	RO					2ROJ-16
				No	STC	RO					2ROJ-16

SYSTEM: 35 P & ID: M-2153 Sh. 1 **SYSTEM DESCRIPTION:** Fuel Pool Cooling and Cleanup

253001	C-6	10	GT	MA	3	B	Active	O	C	N/A	
FUEL POOL SKIMMER SURGE TK NORMAL DRAIN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GT MA A SC

253018A	A-4	6	GB	MA	3	B	Active	O	C	N/A	
FUEL POOL NORMAL FILL LINE A MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GB MA A SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 35 P & ID: M-2153 Sh. 1 **SYSTEM DESCRIPTION:** Fuel Pool Cooling and Cleanup

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
253018B	A-5	6	GB	MA	3	B	Active	O	C	N/A	
FUEL POOL NORMAL FILL LINE B MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GB MA A SC
253021	C-7	16	GT	MA	3	B	Active	C	O/C	N/A	
FUEL POOL SKIMMER SURGE TK RHRS DRAIN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GT MA A SOC
253070A	A-7	8	GB	MA	3	B	Active	C	O/C	N/A	
FUEL POOL RHRS FILL LINE A MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GB MA A SOC
253070B	A-7	8	GB	MA	3	B	Active	C	O/C	N/A	
FUEL POOL RHRS FILL LINE B MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GB MA A SOC
253071A	A-5	8	CK	SA	3	C	Active	SYS	O	N/A	
FUEL POOL FILL LINE A CHECK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-FPC-1
				No	FSO	CM					1/2CMP-FPC-1

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 35 P & ID: M-2153 Sh. 1 **SYSTEM DESCRIPTION:** Fuel Pool Cooling and Cleanup

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
253071B	A-5	8	CK	SA	3	C	Active	SYS	O	N/A	
FUEL POOL FILL LINE B CHECK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-FPC-1
				No	FSO	CM					1/2CMP-FPC-1
253090A	A-5	2	GB	MA	3	B	Active	C	O	N/A	
FUEL POOL ESW MAKEUP MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GB MA A SO
253090B	A-6	2	GB	MA	3	B	Active	C	O	N/A	
FUEL POOL ESW MAKEUP MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GB MA A SO
253091A	A-4	2	GT	MA	3	B	Active	C	O	N/A	
FUEL POOL ESW MAKEUP MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GT MA A SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 35 P & ID: M-2153 Sh. 1 **SYSTEM DESCRIPTION:** Fuel Pool Cooling and Cleanup

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
253091B	A-6	2	GB	MA	3	B	Active	C	O	N/A	
FUEL POOL ESW MAKEUP MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GB MA A SQ
253500	A-4	2	GB	MA	3	B	Active	C	O	N/A	
FUEL POOL ESW MAKEUP MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GB MA A SO
253501	A-6	2	GB	MA	3	B	Active	C	O	N/A	
FUEL POOL ESW MAKEUP MAN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-C/C	2Y					B GB MA A SO

SYSTEM: 45 P & ID: M-2141 Sh. 2 **SYSTEM DESCRIPTION:** Feedwater

241017	F-3	1	GB	MA	2	A	Passive	C	C	N/A	
DEMIN WATER CONTAINMENT ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GB MA P SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 45 P & ID: M-2141 Sh. 2 **SYSTEM DESCRIPTION:** Feedwater

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241018	F-3	1	GB	MA	2	A	Passive	C	C	N/A	
DEMIN WATER CONTAINMENT ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GB MA P SC J
241818A	C-3	24	CK	SA	1	A/C	Active	SYS	O/C	N/A	
FW LINE A ISO VLV TO RX		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					AC CK SA A SOC J
				No	FSO	C					AC CK SA A SOC J
				No	FSC	RO					2ROJ-08

241818B	E-3	24	CK	SA	1	A/C	Active	SYS	O/C	N/A	
FW LINE B ISO VLV TO RX		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	C					AC CK SA A SOC J
				No	LTJ	J					AC CK SA A SOC J
				No	FSC	RO					2ROJ-08

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 45 P & ID: M-2141 Sh. 2 **SYSTEM DESCRIPTION:** Feedwater

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F010A	C-4	24	CK	SA	1	A/C	Active	SYS	O/C	N/A	
FW LINE A CKV TO RX		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					AC CK SA A SOC J
				No	FSO	M3					AC CK SA A SOC J
				No	FSC	C					2ROJ-08
241F010B	E-3	24	CK	SA	1	A/C	Active	SYS	O/C	N/A	
FW LINE B CKV TO RX		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-08
				No	FSO	C					AC CK SA A SOC J
				No	LTJ	J					AC CK SA A SOC J
241F039A	D-2	3	CK	SA	2	A/C	Active	SYS	C	N/A	
FW LINE A FLUSHING CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					AC CK SA A SC J CM
				No	FSC	CM					2CMP-RWCU-1
				No	FSO	C					2CMP-RWCU-1

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 45 P & ID: M-2141 Sh. 2 **SYSTEM DESCRIPTION:** *Feedwater*

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F039B	D-2	3	CK	SA	2	A/C	Active	SYS	C	N/A	
FW LINE B FLUSHING CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RWCU-1
				No	FSO	C					2CMP-RWCU-1
				No	LTJ	J					AC CK SA A SC J CM
HV24182A	C-2	3	GT	MO	2	A	Active	O	C	N/A	
FW INLET LINE A RWCU RETURN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-11
				No	RPI	2Y					A GT MO A PI SCJ
				No	LTJ	J					A GT MO A PI SCJ
				No	STC	RO					2ROJ-11
HV24182B	E-2	3	GT	MO	2	A	Active	O	C	N/A	
FW INLET LINE B RWCU RETURN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	RO					2ROJ-11
				No	LTJ	J					A GT MO A PI SCJ
				No	RPI	2Y					A GT MO A PI SCJ
				No	FSC	RO					2ROJ-11

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 45 P & ID: M-2141 Sh. 2 **SYSTEM DESCRIPTION:** Feedwater

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV241F011A	C-4	24	GT	MO	1	B	Passive	O	O	N/A	
FEEDWATER IB SHUTOFF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO P PI SO
HV241F011B	E-4	24	GT	MO	1	B	Passive	O	O	N/A	
FEEDWATER IB SHUTOFF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO P PI SO
HV241F032A	C-2	24	SC	MO	2	A/C	Active	SYS	C	N/A	
FW INLET LINE A STOP CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-14
				No	RPI	2Y					AC SC MO A PI SC J
				No	LTJ	J					AC SC MO A PI SC J
				No	FSC	CS					2CSJ-14
				No	FSC	RO					2ROJ-10
				No	FSO	C					AC SC MO A PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 45 P & ID: M-2141 Sh. 2 **SYSTEM DESCRIPTION:** Feedwater

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV241F032B	E-2	24	SC	MO	2	A/C	Active	SYS	C	N/A	
FW INLET LINE B STOP CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	C					AC SC MO A PI SC J
				No	FSC	RO					2ROJ-10
				No	FSC	CS					2CSJ-14
				No	LTJ	J					AC SC MO A PI SC J
				No	RPI	2Y					AC SC MO A PI SC J
				No	STC	CS					2CSJ-14

XV241F009	B-3	1	XC	SA	1	C	Active	SYS	C	N/A	
FW EXCESS FLOW CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
251060	E-7	16	GT	MA	2	B	Active	C	O/C	N/A	
RHR SUPPLY FROM FUEL POOL MAN ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GT MA A SOC
251070	C-5	12	GT	MA	2	B	Active	LC	O/C	N/A	
RHR RETURN TO FUEL POOL MAN ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FS-O/C	2Y					B GT MA A SOC
251130	C-1	1	CK	SA	1	A/C	Active	SYS	O	N/A	
RHR CROSS-CONN CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTO	2Y					AC CK SA A SO
				No	FSC	RO					2ROJ-19
				No	FSO	RO					2ROJ-19
251F031A	G-3	20	CK	SA	2	C	Active	SYS	O/C	N/A	
RHR PUMP DISCHARGE CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					C CK SA A SOC
				No	FSO	M3					C CK SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
251F031B	G-8	20	CK	SA	2	C	Active	SYS	O/C	N/A	
RHR PUMP DISCHARGE CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					C CK SA A SOC
				No	FSC	M3					C CK SA A SOC
251F031C	H-2	20	CK	SA	2	C	Active	SYS	O/C	N/A	
RHR PUMP DISCHARGE CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					C CK SA A SOC
				No	FSO	M3					C CK SA A SOC
251F031D	H-8	20	CK	SA	2	C	Active	SYS	O/C	N/A	
RHR PUMP DISCHARGE CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					C CK SA A SOC
				No	FSC	M3					C CK SA A SOC
251F046A	F-3	4	CK	SA	2	C	Active	SYS	O	N/A	
RHR PP A MIN RECIRC CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RHR-2
				No	FSO	CM					2CMP-RHR-2

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
251F046B	F-7	4	CK	SA	2	C	Active	SYS	O	N/A	
RHR PP B MIN RECIRC CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RHR-2
				No	FSO	CM					2CMP-RHR-2
251F046C	F-2	4	CK	SA	2	C	Active	SYS	O	N/A	
RHR PP C MIN RECIRC CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RHR-2
				No	FSO	CM					2CMP-RHR-2
251F046D	F-8	4	CK	SA	2	C	Active	SYS	O	N/A	
RHR PP D MIN RECIRC CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RHR-2
				No	FSO	CM					2CMP-RHR-2
251F060A	D-8	24	GT	MA	1	B	Passive	LO	O	N/A	
RHR LPCI INJECTION MANUAL ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MA P RPI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
251F060B	C-2	24	GT	MA	1	B	Passive	LO	O	N/A	
RHR LPCI INJECTION MANUAL ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MA P RPI SO
251F089A	C-4	2	CK	SA	2	C	Active	SYS	C	N/A	
RHR LOOP A FLUSHING CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-15
				No	FSO	C					
251F089B	B-6	2	CK	SA	2	C	Active	SYS	C	N/A	
RHR LOOP B FLUSHING CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-15
				No	FSO	C					
251F090A	C-4	2	CK	SA	2	C	Active	SYS	C	N/A	
RHR LOOP A FLUSHING CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-15
				No	FSO	C					

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
251F090B	B-6	2	CK	SA	2	C	Active	SYS	C	N/A	
RHR LOOP B FLUSHING CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-15
				No	FSO	C					
HV251F003A	F-5	20	GT	MO	2	B	Active	O	O	N/A	
RHR HX A SHELL SIDE OUTLET VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GT MO A PI SO
				No	FSO	M3					B GT MO A PI SO
HV251F003A	F-5	20	GT	MO	2	B	Active	O	O	N/A	
RHR HX A SHELL SIDE OUTLET VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SO
HV251F003B	F-4	20	GT	MO	2	B	Active	O	O	N/A	
RHR HX B SHELL SIDE OUTLET VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SO
				No	FSO	M3					B GT MO A PI SO
				No	STO	M3					B GT MO A PI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F004A	F-8	24	GT	MO	2	B	Active	O	O/C	N/A	
RHR PUMP A SUPP POOL SUCT VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	STC	M3					B GT MO A PI SOC
HV251F004B	F-3	24	GT	MO	2	B	Active	O	O/C	N/A	
RHR PUMP B SUPP POOL SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC
HV251F004B	F-3	24	GT	MO	2	B	Active	O	O/C	N/A	
RHR PUMP B SUPP POOL SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F004C	F-9	24	GT	MO	2	B	Active	O	O/C	N/A	
RHR PUMP C SUPP POOL SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	STC	M3					B GT MO A PI SOC
HV251F004D	F-1	24	GT	MO	2	B	Active	O	O/C	N/A	
RHR PUMP D SUPP POOL SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GT MO A PI SOC
				No	STC	M3					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
HV251F006A	G-7	20	GT	MO	2	B	Active	C	O/C	N/A	
RHR SHUTDOWN COOLING RHR PUMP A SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F006A	G-7	20	GT	MO	2	B	Active	C	O/C	N/A	
RHR SHUTDOWN COOLING RHR PUMP A SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC
HV251F006B	G-3	20	GT	MO	2	B	Active	C	O/C	N/A	
RHR SHUTDOWN COOLING RHR PUMP B SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F006C	H-8	20	GT	MO	2	B	Active	C	O/C	N/A	
RHR SHUTDOWN COOLING RHR PUMP C SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	STC	M3					B GT MO A PI SOC

HV251F006D	H-2	20	GT	MO	2	B	Active	O	O/C	N/A	
RHR SHUTDOWN COOLING RHR PUMP D SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F007A	F-7	6	GT	MO	2	B	Active	O	O/C	N/A	
RHR PUMPS A&C DISCHARGE MIN FLOW VLV TO SUPP POOL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	STC	M3					B GT MO A PI SOC
HV251F007B	F-3	6	GT	MO	2	B	Active	O	O/C	N/A	
RHR PUMPS B&D DISCHARGE MIN FLOW VLV TO SUPP POOL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F008	E-3	20	GT	MO	1	A	Active	C	C	N/A	
RHR SHUTDOWN COOLING SUCTION OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-10
				No	RPI	2Y					A GT MO A PI SCJ
				No	LTJ	J					A GT MO A PI SCJ
				No	FSC	CS					2CSJ-10
				No	LTP	J					2RR02
HV251F009	D-1	20	GT	MO	1	A	Active	C	C	N/A	
RHR SHUTDOWN CLG SUCT IB ISO		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTP	J					2RR02
				No	FSC	CS					2CSJ-10
				No	LTJ	J					A GT MO A PI SCJ
				No	RPI	2Y					A GT MO A PI SCJ
				No	STC	CS					2CSJ-10
HV251F011A	H-6	4	GT	MA	2	A	Passive	C	C	N/A	
RHR HX A DRN TO SUPP POOL VLV DISABLED		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT MA P SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F015A	D-7	24	GT	MO	1	A	Active	C	O/C	N/A	
RHR LOOP A INJECTION OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	LTP	J					2RR02
				No	FSC	CS					2CSJ-08
				No	FSO	CS					2CSJ-08
				No	STC	CS					2CSJ-08
				No	STO	CS					2CSJ-08
HV251F015B	C-3	24	GT	MO	1	A	Active	C	O/C	N/A	
RHR LOOP B INJECTION OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CS					2CSJ-08
				No	FSO	CS					2CSJ-08
				No	STC	CS					2CSJ-08
				No	STO	CS					2CSJ-08
				No	LTP	J					2RR02
				No	RPI	2Y					A GT MO A PI SOC J
				No	LTJ	J					A GT MO A PI SOC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F016A	B-5	12	GB	MO	2	A	Active	C	O/C	N/A	
RHR LOOP A DRWL SPRAY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GB MO A NA PI SOCJ
				No	RPI	2Y					A GB MO A NA PI SOCJ

HV251F016A	B-5	12	GB	MO	2	A	Active	C	O/C	N/A	
RHR LOOP A DRWL SPRAY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					A GB MO A NA PI SOCJ
				No	FSC	M3					A GB MO A NA PI SOCJ
				No	FSO	M3					A GB MO A NA PI SOCJ
				No	STC	M3					A GB MO A NA PI SOCJ

HV251F017A	D-3	24	GB	MO	2	B	Active	O	O	N/A	
RHR LOOP A INJECTION FLOW CONTROL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB MO A PI SO
				No	FSO	M3					B GB MO A PI SO
				No	STO	M3					B GB MO A PI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F016B	A-5	12	GB	MO	2	A	Active	C	O/C	N/A	
RHR LOOP B DRWL SPRAY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB MO A NA PI SOCJ
				No	FSO	M3					A GB MO A NA PI SOCJ
				No	FSC	M3					A GB MO A NA PI SOCJ
				No	STO	M3					A GB MO A NA PI SOCJ
				No	RPI	2Y					A GB MO A NA PI SOCJ
				No	LTJ	J					A GB MO A NA PI SOCJ
HV251F017B	C-7	24	GB	MO	2	B	Active	O	O	N/A	
RHR LOOP B INJECTION FLOW CONTROL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GB MO A PI SO
				No	FSO	M3					B GB MO A PI SO
				No	RPI	2Y					B GB MO A PI SO
HV251F021A	B-7	12	GT	MO	2	B	Active	C	O	N/A	
RHR LOOP A DRWL SPRAY IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SO
				No	FSO	M3					B GT MO A PI SO
				No	STO	M3					B GT MO A PI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F021B	A-3	12	GT	MO	2	B	Active	C	O	N/A	
RHR LOOP B DRWL SPRAY IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GT MO A PI SO
				No	FSO	M3					B GT MO A PI SO
				No	RPI	2Y					B GT MO A PI SO
HV251F022	B-8	6	GT	MO	1	A	Active	C	C	N/A	
RHR HEAD SPRAY IB SHUTOFF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-08
				No	LTJ	J					A GT MO A PI SCJ
				No	RPI	2Y					A GT MO A PI SCJ
				No	FSC	CS					2CSJ-08
HV251F022	B-8	6	GT	MO	1	A	Active	C	C	N/A	
RHR HEAD SPRAY IB SHUTOFF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTP	J					2RR02

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F023	B-8	6	GB	MO	2	A	Active	C	C	N/A	
RHR REACTOR HEAD SPRAY FLOW CONTROL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTP	J					2RR02
				No	FSC	CS					2CSJ-08
				No	RPI	2Y					A GB MO A PI SCJ
				No	LTJ	J					A GB MO A PI SCJ
				No	STC	CS					2CSJ-08
HV251F024A	E-7	18	GB	MO	2	B	Active	C	O/C	N/A	
RHR LOOP A SUPP POOL CLG/TEST CONTROL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB MO A PI SOC
				No	RPI	2Y					B GB MO A PI SOC
				No	FSC	M3					B GB MO A PI SOC
				No	FSO	M3					B GB MO A PI SOC
				No	STC	M3					B GB MO A PI SOC
HV251F024B	F-3	18	GB	MO	2	B	Active	C	O/C	N/A	
RHR LOOP B SUPP POOL CLG/TEST CONTROL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB MO A PI SOC
				No	FSO	M3					B GB MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F024B	F-3	18	GB	MO	2	B	Active	C	O/C	N/A	
RHR LOOP B SUPP POOL CLG/TEST CONTROL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GB MO A PI SOC
				No	RPI	2Y					B GB MO A PI SOC
				No	STO	M3					B GB MO A PI SOC
HV251F027A	E-7	6	GB	MO	2	B	Active	C	O/C	N/A	
RHR LOOP A SUPP POOL SPRAY CONTROL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GB MO A PI SOC
				No	RPI	2Y					B GB MO A PI SOC
				No	FSC	M3					B GB MO A PI SOC
				No	FSO	M3					B GB MO A PI SOC
				No	STC	M3					B GB MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F027B	E-3	6	GB	MO	2	B	Active	C	O/C	N/A	
RHR LOOP B SUPP POOL SPRAY CONTROL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB MO A PI SOC
				No	FSO	M3					B GB MO A PI SOC
				No	FSC	M3					B GB MO A PI SOC
				No	RPI	2Y					B GB MO A PI SOC
				No	STO	M3					B GB MO A PI SOC

HV251F028A	E-5	18	GT	MO	2	A	Active	C	O/C	N/A	
RHR LOOP A SUPP CHR SPRAY TEST SHUTOFF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					A GT MO A PI SOC J
				No	FSO	M3					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	STC	M3					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	LTJ	J					A GT MO A PI SOC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F028B	C-6	18	GT	MO	2	A	Active	C	O/C	N/A	
RHR LOOP B SUPP-CHR SPRAY TEST SHUTOFF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	STC	M3					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	FSO	M3					A GT MO A PI SOC J
				No	STO	M3					A GT MO A PI SOC J
HV251F040	B-2	4	GT	MO	2	B	Active	C	C	N/A	
RHR RADWASTE LINE IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SC
				No	STC	M3					B GT MO A PI SC
				No	FSC	M3					B GT MO A PI SC
HV251F047A	C-8	20	GT	MO	2	B	Active	O	O	N/A	
RHR HX A SHELL SIDE INLET VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SO
				No	STO	M3					B GT MO A PI SO
				No	FSO	M3					B GT MO A PI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F047B	C-2	20	GT	MO	2	B	Active	O	O	N/A	
RHR HX B SHELL SIDE INLET VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					B GT MO A PI SO
				No	STO	M3					B GT MO A PI SO
				No	RPI	2Y					B GT MO A PI SO
HV251F048A	G-1	24	GB	MO	2	B	Active	O	O/C	N/A	
RHR HX A SHELL SIDE BYPASS VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB MO A PI SOC
				No	FSC	M3					B GB MO A PI SOC
				No	FSO	M3					B GB MO A PI SOC
				No	STC	M3					B GB MO A PI SOC
				No	STO	M3					B GB MO A PI SOC
HV251F048B	F-9	24	GB	MO	2	B	Active	O	O/C	N/A	
RHR HX B SHELL SIDE BYPASS VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GB MO A PI SOC
				No	STC	M3					B GB MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F048B	F-9	24	GB	MO	2	B	Active	O	O/C	N/A	
RHR HX B SHELL SIDE BYPASS VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					B GB MO A PI SOC
				No	FSC	M3					B GB MO A PI SOC
				No	RPI	2Y					B GB MO A PI SOC
HV251F049	B-2	4	GT	MO	2	B	Active	C	C	N/A	
RHR RADWASTE LINE OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GT MO A PI SC
				No	STC	M3					B GT MO A PI SC
				No	RPI	2Y					B GT MO A PI SC
HV251F050A	D-8	24	CK	SA	1	A/C	Active	SYS	O/C	N/A	
RHR LOOP A TESTABLE CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CS					2CSJ-09
				No	FSO	CS					2CSJ-09
				No	RPI	2Y					AC CK SA A RPI SOC
				No	LTP	J					2RR02

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** *Residual Heat Removal*

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F050B	C-2	24	CK	SA	1	A/C	Active	SYS	O/C	N/A	
RHR LOOP B TESTABLE CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTP	J					2RR02
				No	RPI	2Y					AC CK SA A RPI SOC
				No	FSC	CS					2CSJ-09

HV251F050B	C-2	24	CK	SA	1	A/C	Active	SYS	O/C	N/A	
RHR LOOP B TESTABLE CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	CS					2CSJ-09

HV251F103A	C-3	1	GB	MO	2	A	Active	C	C	N/A	
RHR HX A VENT VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GB MO A PI SCJ
				No	RPI	2Y					A GB MO A PI SCJ
				No	FSC	M3					A GB MO A PI SCJ
				No	STC	M3					A GB MO A PI SCJ

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F103B	C-7	1	GB	MO	2	A	Active	C	C	N/A	
RHR HX B VENT VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB MO A PI SCJ
				No	FSC	M3					A GB MO A PI SCJ
				No	RPI	2Y					A GB MO A PI SCJ
				No	LTJ	J					A GB MO A PI SCJ
HV251F122A	E-8	1	GB	AO	1	A	Active	C	C	C	
RHR LPCI INJECTION TESTABLE CHECK BYPASS VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB AO A FC PI SC
				No	FTC	CS					2CSJ-15
				No	FSC	CS					2CSJ-15
				No	STC	CS					2CSJ-15
HV251F122A	E-8	1	GB	AO	1	A	Active	C	C	C	
RHR LPCI INJECTION TESTABLE CHECK BYPASS VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTP	J					2RR02

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV251F122B	C-2	1	GB	AO	1	A	Active	C	C	C	
RHR LPCI INJECTION TESTABLE CHECK BYPASS VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTP	J					2RR02
				No	STC	CS					2CSJ-15
				No	FTC	CS					2CSJ-15
				No	FSC	CS					2CSJ-15
				No	RPI	2Y					A GB AO A FC PI SC
PSV25106A	F-3	0.75	RV	SA	2	A/C	Active	C	O/C	N/A	
RHR HEAT EXCHANGER THERMAL RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					AC RV SA A SOC J
				No	RVT	10Y					AC RV SA A SOC J

PSV25106B	F-7	0.75	RV	SA	2	A/C	Active	C	O/C	N/A	
RHR HEAT EXCHANGER THERMAL RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					AC RV SA A SOC J
				No	LTJ	J					AC RV SA A SOC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV25113	A-6	1	RV	SA	2	C	Active	C	O/C	N/A	
RHR HEAD SPRAY PRESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV25193	A-8	1	RV	SA	2	C	Active	C	O/C	N/A	
RHR LOOP CROSS TIE PRESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV251F025A	D-2	1	RV	SA	2	C	Active	C	O/C	N/A	
RHR LPCI DISCHARGE PIPING RESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV251F025B	B-8	1	RV	SA	2	C	Active	C	O/C	N/A	
RHR LPCI DISCHARGE PIPING RESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV251F029	F-6	1	RV	SA	2	C	Active	C	O/C	N/A	
RHR LOOP SUCTION CROSS TIE PRESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV251F030A	G-6	1	RV	SA	2	C	Active	C	O/C	N/A	
RHR PUMP SUCTION PRESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV251F030B	G-4	1	RV	SA	2	C	Active	C	O/C	N/A	
RHR PUMP SUCTION PRESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV251F030C	H-7	1	RV	SA	2	C	Active	C	O/C	N/A	
RHR PUMP SUCTION PRESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV251F030D	H-3	1	RV	SA	2	C	Active	C	O/C	N/A	
RHR PUMP SUCTION PRESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV251F126	D-2	1	RV	SA	1	A/C	Active	C	O/C	N/A	
RHR SHUTDOWN COOLING SUCTION PRESSURE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					AC RV SA A SOC J
				No	RVT	10Y					AC RV SA A SOC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV251F079A	G-4	1	GB	SO	2	B	Active	C	C	C	
HX A PROCESS WTR OUT SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB SO A FC PI SC
				No	FTC	M3					B GB SO A FC PI SC
				No	FSC	M3					B GB SO A FC PI SC
				No	RPI	2Y					B GB SO A FC PI SC
SV251F079B	G-5	1	GB	SO	2	B	Active	C	C	C	
HX B PROCESS WTR OUT SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB SO A FC PI SC
				No	FSC	M3					B GB SO A FC PI SC
				No	FTC	M3					B GB SO A FC PI SC
				No	STC	M3					B GB SO A FC PI SC
SV251F080A	G-5	1	GB	SO	2	B	Active	C	C	C	
HX A PROCESS WTR OUT SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB SO A FC PI SC
				No	FTC	M3					B GB SO A FC PI SC
				No	FSC	M3					B GB SO A FC PI SC
				No	RPI	2Y					B GB SO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV251F080B	G-5	1	GB	SO	2	B	Active	C	C	C	
HX B PROCESS WTR OUT SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB SO A FC PI SC
				No	FSC	M3					B GB SO A FC PI SC
				No	FTC	M3					B GB SO A FC PI SC
				No	STC	M3					B GB SO A FC PI SC
XV25109A	D-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RHR SDC FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
XV25109A	D-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RHR SDC FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV25109B	D-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RHR SDC FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 49 P & ID: M-2151 Sh. 3 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV25109C	C-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RHR SDC FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV25109D	D-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RHR SDC FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

249015	E-5	2	CK	SA	2	C	Active	SYS	C	N/A	
RCIC PP FILLING LINE CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-15
				No	FSO	C					2ROJ-15

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
249016	E-5	2	CK	SA	2	C	Active	SYS	C	N/A	
RCIC PP FILLING LINE CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-RCIC/HPCI-1
				No	FSO	CM					1/2CMP-RCIC/HPCI-1
249020	E-5	1	GB	MA	2	A	Passive	C	C	N/A	
RCIC PUMP INJECTION LINE FLUSHING VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GB MA P SC J
249F011	C-8	6	CK	SA	2	C	Active	SYS	O/C	N/A	
RCIC PP SUCT CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RCIC-3
				No	FSO	CM					2CMP-RCIC-3
249F014	E-6	6	CK	SA	2	C	Active	SYS	O	N/A	
RCIC PP DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					C CK SA A SO
				No	FSO	M3					C CK SA A SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
249F021	F-7	2	CK	SA	2	C	Active	SYS	O/C	N/A	
RCIC TURB PP DSCH MIN FLO BYPS CK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-RCIC-2
				No	FSO	CM					1/2CMP-RCIC-2
249F028	G-5	2	CK	SA	2	A/C	Active	SYS	C	N/A	
RCIC VAC PP DSCH CKV TO SUPP PO		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RCIC-5
				No	FSO	CM					2CMP-RCIC-5
				No	LTJ	J					AC CK SA A SC J CM
249F030	H-3	6	CK	SA	2	C	Active	SYS	O/C	N/A	
RCIC SUPP POOL OUT CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RCIC-3
				No	FSO	CM					2CMP-RCIC-3
249F040	G-5	10	CK	SA	2	A/C	Active	SYS	O/C	N/A	
RCIC TURB EXH CKV TO SUPP POOL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RCIC-4
				No	FSO	CM					2CMP-RCIC-4
				No	LTJ	J					AC CK SA A SOC J CM

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
249F063	F-4	2	CK	SA	2	C	Active	SYS	O/C	N/A	
RCIC TURB EXH VAC BKR TEST CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RCIC/HPCI 3
				No	FSO	CM					2CMP-RCIC/HPCI 3
249F064	F-4	2	CK	SA	2	C	Active	SYS	O/C	N/A	
RCIC TURB EXH VAC BKR TEST CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RCIC/HPCI 3
				No	FSO	CM					2CMP-RCIC/HPCI 3
250F047	G-5	2	CK	SA	2	C	Active	SYS	C	N/A	
RCIC VAC TNK COND PP DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-RCIC/HPCI-4
				No	FSO	CM					1/2CMP-RCIC/HPCI-4

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
FV249F019	F-3	2	GB	MO	2	B	Active	C	O/C	N/A	
RCIC MIN FLOW VLV TO SUPP POOL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB MO A PI SOC
				No	FSC	M3					B GB MO A PI SOC
				No	FSO	M3					B GB MO A PI SOC
				No	STC	M3					B GB MO A PI SOC
				No	STO	M3					B GB MO A PI SOC
HV249F007	C-3	4	GT	MO	1	A	Active	O	O/C	N/A	
RCIC TURB STM SUPPLY IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-20
				No	STO	CS					2CSJ-20
				No	RPI	2Y					A GT MO A PI SOC J
				No	FSC	CS					2CSJ-20
				No	FSO	CS					2CSJ-20
				No	LTJ	J					A GT MO A PI SOC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV249F008	C-3	4	GT	MO	1	A	Active	O	O/C	N/A	
RCIC TURB STEAM SUPPLY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT MO A PI SOC J
				No	FSC	CS					2CSJ-23
				No	FSO	CS					2CSJ-23
				No	RPI	2Y					A GT MO A PI SOC J
				No	STC	CS					2CSJ-23
				No	STO	CS					2CSJ-23
HV249F010	C-8	6	GT	MO	2	B	Active	O	O/C	N/A	
RCIC PUMP SUCTION CST SUPPLY VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GT MO A PI SOC
				No	STC	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC
HV249F010	C-8	6	GT	MO	2	B	Active	O	O/C	N/A	
RCIC PUMP SUCTION CST SUPPLY VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GT MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV249F012	E-6	6	GT	MO	2	B	Active	O	O	N/A	
RCIC PUMP DISCHARGE VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SO
				No	FSO	M3					B GT MO A PI SO
				No	STO	M3					B GT MO A PI SO
HV249F013	E-5	6	GT	MO	2	A	Active	C	O/C	N/A	
RCIC INJECTION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GT MO A PI SOC J
				No	STO	M3					A GT MO A PI SOC J
				No	FSO	M3					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	STC	M3					A GT MO A PI SOC J
				No	LTJ	J					A GT MO A PI SOC J
HV249F022	D-5	4	GB	MO	2	B	Active	C	C	N/A	
RCIC TEST TO CST ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB MO A PI SC
				No	RPI	2Y					B GB MO A PI SC
				No	FSC	M3					B GB MO A PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV249F025	F-8	1	GB	AO	2	B	Active	O	C	C	
RCIC TURB STM SUPPLY PIPING STM TRAP UPSTM ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB AO A FC PI SC
				No	STC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	FSC	M3					B GB AO A FC PI SC
HV249F026	G-8	1	GB	AO	2	B	Active	O	C	C	
RCIC TURB STM SUPPLY PIPING STM TRAPDWNSTM ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	STC	M3					B GB AO A FC PI SC
				No	RPI	2Y					B GB AO A FC PI SC
HV249F031	H-2	6	GT	MO	2	B	Active	C	O/C	N/A	
RCIC PUMP SUCTION SUPP POOL SUPPLY VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV249F059	G-3	10	GT	MO	2	A	Active	O	O/C	N/A	
RCIC TURB EXHAUST VLV TO SUPP POOL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	FSO	M3					A GT MO A PI SOC J
				No	STO	M3					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	LTJ	J					A GT MO A PI SOC J
HV249F060	G-3	2	GB	MO	2	A	Active	O	C	N/A	
RCIC VAC PUMP DSCH VLV TO SUPP POOL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GB MO A PI SCJ
				No	STC	M3					A GB MO A PI SCJ
				No	FSC	M3					A GB MO A PI SCJ
				No	RPI	2Y					A GB MO A PI SCJ

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV249F062	F-4	2	GT	MO	2	A	Active	O	O/C	N/A	
RCIC TURB EXHAUST OB VAC BKR VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	STO	M3					A GT MO A PI SOC J
				No	FSO	M3					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	STC	M3					A GT MO A PI SOC J
HV249F084	F-3	2	GT	MO	2	A	Active	O	O/C	N/A	
RCIC TURB EXHAUST IB VAC BKR VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	LTJ	J					A GT MO A PI SOC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV249F088	C-3	1	GB	AO	1	A	Active	C	C	C	
RCIC STM SUPPLY INBOARD ISO VLV BYPASS VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	CS					2CSJ-21
				No	FSC	CS					2CSJ-21
				No	LTJ	J					A GB AO A FC PI SC J
				No	RPI	2Y					A GB AO A FC PI SC J
				No	STC	CS					2CSJ-21
HV250F004	H-5	1	GB	AO	2	B	Active	C	C	C	
RCIC VAC TNK COND PP TO LQD RAD WST UPSTM ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB AO A FC PI SC
				No	STC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	FSC	M3					B GB AO A FC PI SC
HV250F045	C-8	4	GB	MO	2	B	Active	C	O	N/A	
RCIC TURBINE STEAM SUPPLY VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					B GB MO A PI SO
				No	RPI	2Y					B GB MO A PI SO
				No	STO	M3					B GB MO A PI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV250F005	H-4	1	GB	AO	2	B	Active	O	C	C	
RCIC VAC TNK COND PP TO LQD RAD WST DWNSTM ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	STC	M3					B GB AO A FC PI SC
				No	RPI	2Y					B GB AO A FC PI SC
HV250F046	G-4	2	GB	MO	2	B	Active	C	O/C	N/A	
RCIC LUBE OIL COOLER WATER SUPPLY VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GB MO A PI SOC
				No	STC	M3					B GB MO A PI SOC
				No	FSO	M3					B GB MO A PI SOC
				No	FSC	M3					B GB MO A PI SOC
				No	RPI	2Y					B GB MO A PI SOC
PSEE512D001	B-5	2	RD	SA	2	D	Active	C	O/C	N/A	
RCIC TURBINE EXHAUST RUPTURE DISK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	Rep	5Y					D RD SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSEE512D002	B-5	2	RD	SA	2	D	Active	C	O/C	N/A	
RCIC TURBINE EXHAUST RUPTURE DISK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	Rep	5Y					D RD SA A SOC
PSV250F017	C-2	1	RV	SA	2	C	Active	C	O/C	N/A	
RCIC LUBE OIL COOLER WATER SUPPLY RELIEF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV250F018	F-5	1	RV	SA	2	C	Active	C	O/C	N/A	
RCIC PUMP SUCTION RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
XV249F044A	A-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RCIC TURB STM FLO LIM VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 50 P & ID: M-2149 **SYSTEM DESCRIPTION:** R.C.I.C Turbine-Pump

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV249F044B	D-4	1	XC	SA	1	C	Active	SYS	C	N/A	
RCIC TURB STM FLO LIM VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV249F044C	B-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RCIC TURB STM FLO LIM VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV249F044D	D-4	1	XC	SA	1	C	Active	SYS	C	N/A	
RCIC TURB STM FLO LIM VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
252005	E-8	3	CK	SA	2	C	Active	SYS	C	N/A	
CSPRY FILL WTR CKV TO SUPP POOL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-CS-1
				No	FSO	CM					1/2CMP-CS-1
252F003A	E-5	12	CK	SA	2	C	Active	SYS	O/C	N/A	
CSPRY PP A DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					C CK SA A SOC
252F003A	E-5	12	CK	SA	2	C	Active	SYS	O/C	N/A	
CSPRY PP A DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					C CK SA A SOC
252F003B	E-8	12	CK	SA	2	C	Active	SYS	O/C	N/A	
CSPRY PP B DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					C CK SA A SOC
				No	FSO	M3					C CK SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
252F003C	E-6	12	CK	SA	2	C	Active	SYS	O/C	N/A	
CSPRY PP C DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					C CK SA A SOC
				No	FSC	M3					C CK SA A SOC
252F003D	E-9	12	CK	SA	2	C	Active	SYS	O/C	N/A	
CSPRY PP D DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					C CK SA A SOC
				No	FSO	M3					C CK SA A SOC
252F007A	D-3	12	GT	MA	1	B	Passive	LO	O	N/A	
CORE SPRAY LOOP A MANUAL INJECTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MA P RPI SO
252F007B	B-3	12	GT	MA	1	B	Passive	LO	O	N/A	
CORE SPRAY LOOP B MANUAL INJECTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MA P RPI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
252F029A	A-6	2	CK	SA	2	C	Active	SYS	C	N/A	
CSPRY LOOP A FILL WTR OB CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CS-5
				No	FSO	CM					2CMP-CS-5
252F029B	A-6	2	CK	SA	2	C	Active	SYS	C	N/A	
CSPRY LOOP B FILL WTR OB CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CS-5
				No	FSO	CM					2CMP-CS-5
252F030A	A-6	2	CK	SA	2	C	Active	SYS	C	N/A	
CSPRY LOOP A FILL WTR IB CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CS-5
				No	FSO	CM					2CMP-CS-5
252F030B	A-5	2	CK	SA	2	C	Active	SYS	C	N/A	
CSPRY LOOP B FILL WTR IB CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CS-5
				No	FSO	CM					2CMP-CS-5

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
252F036A	E-5	3	CK	SA	2	C	Active	SYS	O	N/A	
CSPRY PP A LO FLO CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CS-3
				No	FSO	CM					2CMP-CS-3
252F036B	E-8	3	CK	SA	2	C	Active	SYS	O	N/A	
CSPRY PP B LO FLO CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CS-3
				No	FSO	CM					2CMP-CS-3
252F036C	E-6	3	CK	SA	2	C	Active	SYS	O	N/A	
CSPRY PP C LO FLO CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CS-3
				No	FSO	CM					2CMP-CS-3
252F036D	E-9	3	CK	SA	2	C	Active	SYS	O	N/A	
CSPRY PP D LO FLO CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-CS-3
				No	FSO	CM					2CMP-CS-3

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE								
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV252F001A	H-3	16	GT	MO	2	B	Active	O	O/C	N/A	
CORE SPRAY LOOP A SUPP POOL SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
HV252F001A	H-3	16	GT	MO	2	B	Active	O	O/C	N/A	
CORE SPRAY LOOP A SUPP POOL SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
HV252F001B	H-1	16	GT	MO	2	B	Active	O	O/C	N/A	
CORE SPRAY LOOP B SUPP POOL SUCTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	STC	M3					B GT MO A PI SOC
HV252F004A	D-4	12	GT	MO	2	B	Active	O	O	N/A	
CORE SPRAY LOOP A OB INJECTION SHUTOFF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SO
				No	STO	M3					B GT MO A PI SO
				No	FSO	M3					B GT MO A PI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV252F004B	B-4	12	GT	MO	2	B	Active	O	O	N/A	
CORE SPRAY LOOP B OB INJECTION SHUTOFF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					B GT MO A PI SO
				No	STO	M3					B GT MO A PI SO
HV252F004B	B-4	12	GT	MO	2	B	Active	O	O	N/A	
CORE SPRAY LOOP B OB INJECTION SHUTOFF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SO
HV252F005A	D-3	12	GT	MO	1	A	Active	C	O/C	N/A	
CORE SPRAY LOOP A IB INJECTION SHUTOFF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-11
				No	STO	CS					2CSJ-11
				No	RPI	2Y					A GT MO A PI SOC J
				No	LTJ	J					A GT MO A PI SOC J
				No	FSC	CS					2CSJ-11
				No	FSO	CS					2CSJ-11
				No	LTP	J					2RR02

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV252F005B	B-3	12	GT	MO	1	A	Active	C	O/C	N/A	
CORE SPRAY LOOP B IB INJECTION SHUTOFF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTP	J					2RR02
				No	FSC	CS					2CSJ-11
				No	FSO	CS					2CSJ-11
				No	LTJ	J					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	STC	CS					2CSJ-11
				No	STO	CS					2CSJ-11

HV252F006A	D-3	12	CK	SA	1	A/C	Active	SYS	O/C	N/A	
CORE SPRAY LOOP A TESTABLE CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CS					2CSJ-12
				No	FSO	CS					2CSJ-12
				No	LTP	J					2RR02
				No	LTJ	J					AC CK SA A RPI SOC J
				No	RPI	2Y					AC CK SA A RPI SOC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV252F006B	B-3	12	CK	SA	1	A/C	Active	SYS	O/C	N/A	
CORE SPRAY LOOP B TESTABLE CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					AC CK SA A RPI SOC J
				No	LTJ	J					AC CK SA A RPI SOC J
				No	LTP	J					2RR02
				No	FSC	CS					2CSJ-12
				No	FSO	CS					2CSJ-12
HV252F015A	E-3	10	GB	MO	2	B	Active	C	C	N/A	
CORE SPRAY LOOP A TEST TO SUPP POOL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GB MO A PI SC
				No	RPI	2Y					B GB MO A PI SC
				No	STC	M3					B GB MO A PI SC
HV252F015B	E-3	10	GB	MO	2	B	Active	C	C	N/A	
CORE SPRAY LOOP B TEST TO SUPP POOL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB MO A PI SC
				No	RPI	2Y					B GB MO A PI SC
				No	FSC	M3					B GB MO A PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV252F031A	F-3	3	GT	MO	2	B	Active	O	O/C	N/A	
CORE SPRAY LOOP A MIN FLOW VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
HV252F031B	F-3	3	GT	MO	2	B	Active	O	O/C	N/A	
CORE SPRAY LOOP B MIN FLOW VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	STC	M3					B GT MO A PI SOC
HV252F037A	D-3	1	GB	AO	1	A	Active	C	C	C	
CORE SPRAY LOOP A TESTABLE CKV BYPASS AOV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-16
				No	FTC	CS					2CSJ-16
				No	FSC	CS					2CSJ-16
				No	RPI	2Y					A GB AO A FC PI SC J
				No	LTJ	J					A GB AO A FC PI SC J
				No	LTP	J					2RR02

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV252F037B	C-3	1	GB	AO	1	A	Active	C	C	C	
CORE SPRAY LOOP B TESTABLE CKV BYPASS AOV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTP	J					2RR02
				No	LTJ	J					A GB AO A FC PI SC J
				No	RPI	2Y					A GB AO A FC PI SC J
				No	FTC	CS					2CSJ-16
				No	FSC	CS					2CSJ-16
				No	STC	CS					2CSJ-16
PSV252F012A	D-7	1.5	RV	SA	2	C	Active	C	O/C	N/A	
CORE SPRAY DISCHARGE LOOP A RELIEF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV252F012B	B-7	1.5	RV	SA	2	C	Active	C	O/C	N/A	
CORE SPRAY DISCHARGE LOOP B RELIEF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV252F032A	G-4	1	RV	SA	2	C	Active	C	O/C	N/A	
CORE SPRAY SUCTION LOOP A RELIEF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV252F032B	H-6	1	RV	SA	2	C	Active	C	O/C	N/A	
CORE SPRAY SUCTION LOOP B RELIEF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
XV252F018A	B-3	1	XC	SA	1	C	Active	SYS	C	N/A	
CORE SPRAY EXCESS FLOW CHECK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV252F018B	A-3	1	XC	SA	1	C	Active	SYS	C	N/A	
CORE SPRAY EXCESS FLOW CHECK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
255012	E-5	2	CK	SA	2	C	Active	SYS	C	N/A	
HPCI PP DSCH FILLING LINE IB		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-15
				No	FSO	C					5

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
255013	E-5	2	CK	SA	2	C	Active	SYS	C	N/A	
HPCI PP DSCH FILLING LINE OB		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-RCIC/HPCI-1
				No	FSO	CM					1/2CMP-RCIC/HPCI-1
255038	E-5	1	GB	MA	2	A	Passive	C	C	N/A	
HPCI INJECTION VLV BYPASS VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GB MA P SC J
255F005	E-6	14	CK	SA	2	C	Active	SYS	O	N/A	
HPCI PP DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					C CK SA A SO
				No	FSC	M3					C CK SA A SO
255F019	C-8	16	CK	SA	2	C	Active	SYS	O/C	N/A	
HPCI PP SUCT CKV FRM COND STOR TK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-HPCI-4
				No	FSO	CM					2CMP-HPCI-4

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
255F045	H-3	16	CK	SA	2	C	Active	SYS	O/C	N/A	
HPCI PP SUCT CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-HPCI-4
				No	FSO	CM					2CMP-HPCI-4
255F046	F-7	4	CK	SA	2	C	Active	SYS	O/C	N/A	
HPCI PP MIN FLO CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-HPCI-3
				No	FSO	CM					1/2CMP-HPCI-3
255F049	G-5	20	CK	SA	2	A/C	Active	SYS	O/C	N/A	
HPCI TURB EXH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-HPCI-5
				No	FSO	CM					2CMP-HPCI-5
				No	LTJ	J					AC CK SA A SOC J CM
255F076	F-4	3	CK	SA	2	C	Active	SYS	O/C	N/A	
HPCI TURB EXH CKV TO SUPP POOL VAC BKR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RCIC/HPCI 3
				No	FSO	CM					2CMP-RCIC/HPCI 3

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
255F077	F-4	3	CK	SA	2	C	Active	SYS	O/C	N/A	
HPCI TURB EXH CKV TO SUPP POOL VAC BKR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RCIC/HPCI 3
255F077	F-4	3	CK	SA	2	C	Active	SYS	O/C	N/A	
HPCI TURB EXH CKV TO SUPP POOL VAC BKR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	CM					2CMP-RCIC/HPCI 3
256F048	G-4	2	CK	SA	2	C	Active	SYS	O	N/A	
HPCI VAC TNK COND PP DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-HPCI-2
				No	FSO	CM					1/2CMP-HPCI-2
256F052	G-5	2	CK	SA	2	C	Active	SYS	C	N/A	
HPCI VAC TNK COND PP DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-RCIC/HPCI-4
				No	FSO	CM					1/2CMP-RCIC/HPCI-4
256F057	G-5	2	CK	SA	2	C	Active	SYS	O	N/A	
HPCI L-O CLR CLG WTR DSCH CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					1/2CMP-HPCI-2
				No	FSO	CM					1/2CMP-HPCI-2

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 51 P & ID: M-2152 **SYSTEM DESCRIPTION:** Residual Heat Removal

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV255F001	D-8	10	GT	MO	2	B	Active	C	O	N/A	
HPCI TURB STEAM SUPPLY VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SO
				No	STO	M3					B GT MO A PI SO
				No	FSO	M3					B GT MO A PI SO

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

HV255F002	B-3	10	GT	MO	1	A	Active	O	O/C	N/A	
HPCI TURB STM SUPPLY IB ISO		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-18
				No	STO	CS					2CSJ-18
				No	RPI	2Y					A GT MO A PI SOC J
				No	FSC	CS					2CSJ-18
				No	FSO	CS					2CSJ-18
				No	LTJ	J					A GT MO A PI SOC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV255F003	B-3	10	GT	MO	1	A	Active	O	O/C	N/A	
HPCI TURB STEAM SUPPLY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT MO A PI SOC J
				No	FSC	CS					2CSJ-22
				No	FSO	CS					2CSJ-22
				No	RPI	2Y					A GT MO A PI SOC J
				No	STC	CS					2CSJ-22
				No	STO	CS					2CSJ-22
HV255F004	B-8	16	GT	MO	2	B	Active	O	O/C	N/A	
HPCI PUMP SUCTION CST SUPPLY VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
HV255F004	B-8	16	GT	MO	2	B	Active	O	O/C	N/A	
HPCI PUMP SUCTION CST SUPPLY VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					B GT MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV255F006	E-5	14	GT	MO	2	A	Active	C	O/C	N/A	
HPCI INJECTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GT MO A PI SOC J
				No	STO	M3					A GT MO A PI SOC J
				No	FSO	M3					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	STC	M3					A GT MO A PI SOC J
				No	LTJ	J					A GT MO A PI SOC J
HV255F007	E-6	14	GT	MO	2	B	Passive	O	O	N/A	
HPCI PUMP DISCHARGE VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO P PI SO
HV255F008	D-5	10	GB	MO	2	B	Active	C	C	N/A	
HPCI TEST LINE TO CST ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GB MO A PI SC
				No	RPI	2Y					B GB MO A PI SC
				No	STC	M3					B GB MO A PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV255F011	C-5	10	GT	MO	2	B	Active	C	C	N/A	
HPCI/RCIC TEST LINE TO CST ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SC
				No	FSC	M3					B GT MO A PI SC
				No	RPI	2Y					B GT MO A PI SC
HV255F012	F-3	4	GT	MO	2	B	Active	C	O/C	N/A	
HPCI MIN FLOW VLV TO SUPP POOL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	STC	M3					B GT MO A PI SOC
HV255F028	F-8	1	GB	AO	2	B	Active	O	C	C	
HPCI STEAM LINE DRN TO CDSR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	FSC	M3					B GB AO A FC PI SC
				No	RPI	2Y					B GB AO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV255F029	G-8	1	GB	AO	2	B	Active	O	C	C	
HPCI STEAM LINE DRN TO CDSR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB AO A FC PI SC
HV255F029	G-8	1	GB	AO	2	B	Active	O	C	C	
HPCI STEAM LINE DRN TO CDSR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	STC	M3					B GB AO A FC PI SC
HV255F042	H-2	16	GT	MO	2	B	Active	O	O/C	N/A	
HPCI PUMP SUCTION SUPP POOL SUPPLY VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GT MO A PI SOC
				No	STO	M3					B GT MO A PI SOC
				No	FSC	M3					B GT MO A PI SOC
				No	FSO	M3					B GT MO A PI SOC
				No	RPI	2Y					B GT MO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV255F066	G-3	20	GT	MO	2	A	Active	O	O/C	N/A	
HPCI TURB EXHAUST VLV TO SUPP POOL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	LTJ	J					A GT MO A PI SOC J
HV255F075	F-4	3	GT	MO	2	A	Active	O	O/C	N/A	
HPCI TURB EXHAUST OB VAC BKR VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	STC	M3					A GT MO A PI SOC J
HV255F079	F-3	3	GT	MO	2	A	Active	O	O/C	N/A	
HPCI TURB EXHAUST IB VAC BKR VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GT MO A PI SOC J
				No	FSC	M3					A GT MO A PI SOC J
				No	RPI	2Y					A GT MO A PI SOC J
				No	LTJ	J					A GT MO A PI SOC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV255F100	B-3	1	GB	AO	1	A	Active	C	C	C	
HPCI TURB STM SUPPLY IB ISO BYPASS VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	CS					2CSJ-19
				No	FSC	CS					2CSJ-19
				No	RPI	2Y					A GB AO A FC PI SC J
				No	LTJ	J					A GB AO A FC PI SC J
HV255F100	B-3	1	GB	AO	1	A	Active	C	C	C	
HPCI TURB STM SUPPLY IB ISO BYPASS VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-19
HV256F025	H-4	1	GB	AO	2	B	Active	C	C	C	
CLG WTR RETURN HEADER DRAIN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	FSC	M3					B GB AO A FC PI SC
				No	RPI	2Y					B GB AO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV256F026	H-4	1	GB	AO	2	B	Active	O	C	C	
CLG WTR RETURN HEADER DRAIN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB AO A FC PI SC
				No	FSC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	STC	M3					B GB AO A FC PI SC
HV256F059	E-3	2	GB	MO	2	B	Active	O	O/C	N/A	
HPCI L-O CLG WTR VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B GB MO A PI SOC
				No	RPI	2Y					B GB MO A PI SOC
				No	FSC	M3					B GB MO A PI SOC
				No	FSO	M3					B GB MO A PI SOC
HV256F059	E-3	2	GB	MO	2	B	Active	O	O/C	N/A	
HPCI L-O CLG WTR VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB MO A PI SOC
PSEE412D003	B-5	16	RD	SA	2	D	Active	C	O/C	N/A	
HPCI TURB DISCHARGE RPD DSK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	Rep	5Y					D RD SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSEE412D004	B-5	16	RD	SA	2	D	Active	C	O/C	N/A	
HPCI TURB DISCHARGE RPD DSK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	Rep	5Y					D RD SA A SOC
PSV256F020	B-2	1	RV	SA	2	C	Active	C	O/C	N/A	
HPCI BOOSTER PP SUCTION RLF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV256F050	G-3	1.5	RV	SA	2	C	Active	C	O/C	N/A	
HPCI LUBE OIL COOLER RLF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
XV255F024A	C-4	1	XC	SA	1	C	Active	SYS	C	N/A	
HPCI EXCESS FLOW CHECK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
XV255F024A	C-4	1	XC	SA	1	C	Active	SYS	C	N/A	
HPCI EXCESS FLOW CHECK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 52 P & ID: M-2155 **SYSTEM DESCRIPTION:** High Pressure Core Spray

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV255F024B	D-4	1	XC	SA	1	C	Active	SYS	C	N/A	
HPCI EXCESS FLOW CHECK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV255F024C	C-4	1	XC	SA	1	C	Active	SYS	C	N/A	
HPCI EXCESS FLOW CHECK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV255F024D	D-4	1	XC	SA	1	C	Active	SYS	C	N/A	
HPCI EXCESS FLOW CHECK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 53 P & ID: M-2148 **SYSTEM DESCRIPTION:** Standby Liquid Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
248F004A	D-7	1.5	GT	EX	2	D	Active	C	O	N/A	
SBLC INJECTION EXPLOSIVE VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	EXT	SE					D GT EX A SO
248F004B	D-7	1.5	GT	EX	2	D	Active	C	O	N/A	
SBLC INJECTION EXPLOSIVE VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	EXT	SE					D GT EX A SO
248F007	E-8	1.5	CK	SA	1	A/C	Active	SYS	O/C	N/A	
SBLC INJECTION CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					AC CK SA A SOC J CM
				No	FSC	CM					2CMP-SLC-1
				No	FSO	CM					2CMP-SLC-1
248F008	F-9	1.5	GT	MA	1	B	Passive	LO	O	N/A	
SBLC INJECTION MANUAL ISOLATION		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MA P RPI SO
248F033A	D-6	1.5	CK	SA	2	C	Active	SYS	O/C	N/A	
SBLC PUMP DISCHARGE CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					C CK SA A SOC
				No	FSO	M3					C CK SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 53 P & ID: M-2148 **SYSTEM DESCRIPTION:** Standby Liquid Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
248F033B	F-6	1.5	CK	SA	2	C	Active	SYS	O/C	N/A	
SBLC PUMP DISCHARGE CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	M3					C CK SA A SOC
				No	FSC	M3					C CK SA A SOC
HV248F006	D-8	1.5	SC	MO	1	A/C	Active	O	O/C	N/A	
SBLC OB INJECTION VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-14
				No	FSO	RO					2ROJ-14
				No	RPI	2Y					AC SCMO A PI SOCJ CM
				No	LTJ	J					AC SCMO A PI SOCJ CM
				No	STC	RO					2ROJ-14
				No	FSC	CM					2CMP-SLC-2
				No	STO	RO					2ROJ-14
				No	FSO	CM					2CMP-SLC-2
PSV248F029A	D-5	1.5	RV	SA	2	C	Active	C	O/C	N/A	
SBLC PUMP DISCHARGE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 53 P & ID: M-2148 **SYSTEM DESCRIPTION:** Standby Liquid Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV248F029B	F-5	1.5	RV	SA	2	C	Active	C	O/C	N/A	
SBLC PUMP DISCHARGE RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
211132	F-4	4	CK	SA	3	C	Active	SYS	O	N/A	
A DX UNIT SUPPLY CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-ESW-3
				No	FSO	CM					2CMP-ESW-3
211133	G-4	4	CK	SA	3	C	Active	SYS	O	N/A	
ESW LOOP A CLG FROM A DX UNIT CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-ESW-4
				No	FSO	CM					2CMP-ESW-4
211134	E-7	4	CK	SA	3	C	Active	SYS	O	N/A	
B DX UNIT SUPPLY CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-ESW-3
				No	FSO	CM					2CMP-ESW-3

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 53 P & ID: M-2148 **SYSTEM DESCRIPTION:** Standby Liquid Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
211135	E-7	4	CK	SA	3	C	Active	SYS	O	N/A	
ESW LOOP B CLG FROM B DX UNITVCKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-ESW-4
				No	FSO	CM					2CMP-ESW-4
211165A	F-4	2	CK	SA	3	C	Active	SYS	C	N/A	
ESW KEEPFILL ISOLATION		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-15
				No	FSO	C					

SYSTEM: 54 P & ID: M-2111 Sh. 1 **SYSTEM DESCRIPTION:** Emergency Service Water

211165B	D-6	2	CK	SA	3	C	Active	SYS	C	N/A	
ESW KEEPFILL ISOLATION		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-15
				No	FSO	C					
211201C	F-4	1	CK	SA	3	C	Active	SYS	O/C	N/A	
RHR A MTR OIL CLR ESW LP A SUP CK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-ESW-6
				No	FSO	CM					2CMP-ESW-6

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 54 P & ID: M-2111 Sh. 1 **SYSTEM DESCRIPTION:** Emergency Service Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
211201D	A-8	1	CK	SA	3	C	Active	SYS	O/C	N/A	
RHR B MTR OIL CLR ESW LP B SUP CK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	CM					2CMP-ESW-6
				No	FSC	CM					2CMP-ESW-6
211205C	G-4	1	CK	SA	3	C	Active	SYS	O/C	N/A	
RHR A MTR OIL CLR ESW LP B SUP CK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-ESW-6
				No	FSO	CM					2CMP-ESW-6
211205D	B-8	1	CK	SA	3	C	Active	SYS	O/C	N/A	
RHR B MTR OIL CLR ESW LP A SUP CK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	CM					2CMP-ESW-6
				No	FSC	CM					2CMP-ESW-6
HV20943A2	C-8	4	BF	AO	3	B	Active	C	C	C	
TBCCW HX A ESW OUTLET ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B BF AO A FC PI SC
				No	RPI	2Y					B BF AO A FC PI SC
				No	FSC	M3					B BF AO A FC PI SC
				No	FTC	M3					B BF AO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 54 P & ID: M-2111 Sh. 1 **SYSTEM DESCRIPTION:** Emergency Service Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV20943B2	E-8	4	BF	AO	3	B	Active	C	C	C	
TBCCW HX B ESW OUTLET ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					B BF AO A FC PI SC
				No	FSC	M3					B BF AO A FC PI SC
				No	RPI	2Y					B BF AO A FC PI SC
				No	STC	M3					B BF AO A FC PI SC
HV21024A1	B-5	10	BF	AO	3	B	Active	C	C	C	
RBCCW HX A ESW INLET ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B BF AO A FC PI SC
				No	RPI	2Y					B BF AO A FC PI SC
				No	FSC	M3					B BF AO A FC PI SC
				No	FTC	M3					B BF AO A FC PI SC
HV21024A2	A-6	10	BF	AO	3	B	Active	C	C	C	
RBCCW HX A ESW OUTLET ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					B BF AO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 54 P & ID: M-2111 Sh. 1 **SYSTEM DESCRIPTION:** Emergency Service Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV21024A2	A-6	10	BF	AO	3	B	Active	C	C	C	
RBCCW HX A ESW OUTLET ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B BF AO A FC PI SC
				No	RPI	2Y					B BF AO A FC PI SC
				No	STC	M3					B BF AO A FC PI SC
HV21024B1	C-5	10	BF	AO	3	B	Active	C	C	C	
RBCCW HX B ESW INLET ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B BF AO A FC PI SC
				No	RPI	2Y					B BF AO A FC PI SC
				No	FSC	M3					B BF AO A FC PI SC
				No	FTC	M3					B BF AO A FC PI SC
HV21024B2	C-5	10	BF	AO	3	B	Active	C	C	C	
RBCCW HX B ESW OUTLET ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					B BF AO A FC PI SC
				No	FSC	M3					B BF AO A FC PI SC
				No	RPI	2Y					B BF AO A FC PI SC
				No	STC	M3					B BF AO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 54 P & ID: M-2111 Sh. 1 **SYSTEM DESCRIPTION:** Emergency Service Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV21143A	A-2	4	BF	AO	3	B	Active	C	C	C	
TBCCW HX A ESW LOOP A SUPPLY ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B BF AO A FC PI SC
				No	RPI	2Y					B BF AO A FC PI SC
HV21143A	A-2	4	BF	AO	3	B	Active	C	C	C	
TBCCW HX A ESW LOOP A SUPPLY ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B BF AO A FC PI SC
				No	FTC	M3					B BF AO A FC PI SC
HV21143B	A-6	4	BF	AO	3	B	Active	C	C	C	
TBCCW HX B ESW LOOP B SUPPLY ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					B BF AO A FC PI SC
				No	FSC	M3					B BF AO A FC PI SC
				No	RPI	2Y					B BF AO A FC PI SC
				No	STC	M3					B BF AO A FC PI SC
HV21144A	G-4	4	BF	MO	3	B	Active	C	O	N/A	
ESW LOOP A CLG FROM A DX UNIT ISOL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B BF MO A PI SO
				No	FSO	M3					B BF MO A PI SO
				No	STO	M3					B BF MO A PI SO

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 54 P & ID: M-2111 Sh. 1 **SYSTEM DESCRIPTION:** Emergency Service Water

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV21144B	E-7	4	BF	MO	3	B	Active	C	O	N/A	
ESW LOOP B CLG FROM B DX UNIT ISOL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STO	M3					B BF MO A PI SO
				No	FSO	M3					B BF MO A PI SO
				No	RPI	2Y					B BF MO A PI SO
PSV21101	G-3	2	RV	SA	3	C	Active	C	O/C	N/A	
ESW LOOP A CLG FROM A DX UNIT RELIEF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV21102	E-7	2	RV	SA	3	C	Active	C	O/C	N/A	
ESW LOOP B CLG FROM B DX UNIT RELIEF VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 55 P & ID: M-2146 Sh. 1 **SYSTEM DESCRIPTION:** CRDH - Control Rod Drive Hyraulic

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
246027	G-6	3	CK	SA	3	A/C	Active	SYS	C	N/A	
CRD SEISMIC ISLAND CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-18
				No	LTO	2Y					AC CK SA A SC
				No	FSO	C					AC CK SA A SC
246028	G-6	3	CK	SA	3	A/C	Active	SYS	C	N/A	
CRD SEISMIC ISLAND CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	C					AC CK SA A SC
				No	LTO	2Y					AC CK SA A SC
				No	FSC	RO					2ROJ-18
XV247F010A	A-4	1	GB	AO	2	B	Active	O	C	C	
CRD SDV VENT VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	FSC	M3					B GB AO A FC PI SC
				No	RPI	2Y					B GB AO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 55 P & ID: M-2146 Sh. 1 **SYSTEM DESCRIPTION:** CRDH - Control Rod Drive Hyraulic

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV247F010B	A-5	1	GB	AO	2	B	Active	O	C	C	
CRD SDV VENT VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB AO A FC PI SC
				No	FSC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	STC	M3					B GB AO A FC PI SC
XV247F011A	F-5	2	GB	AO	2	B	Active	O	C	C	
CRD SDV DRAIN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	FSC	M3					B GB AO A FC PI SC
				No	RPI	2Y					B GB AO A FC PI SC
XV247F011B	F-6	2	GB	AO	2	B	Active	O	C	C	
CRD SDV DRAIN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB AO A FC PI SC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 55 P & ID: M-2146 Sh. 1 **SYSTEM DESCRIPTION:** CRDH - Control Rod Drive Hyraulic

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV247F011B	F-6	2	GB	AO	2	B	Active	O	C	C	
CRD SDV DRAIN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					B GB AO A FC PI SC
				No	FTC	M3					B GB AO A FC PI SC
				No	STC	M3					B GB AO A FC PI SC

SYSTEM: 59 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Primary Containment Vacuum Relief

PSV25704A1	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					AC RV SAAO A PI SOC
				No	LTO	2Y					AC RV SAAO A PI SOC
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSO	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC
PSV25704A2	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					AC RV SAAO A PI SOC
				No	LTO	2Y					AC RV SAAO A PI SOC
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSO	2Y					AC RV SAAO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 59 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Primary Containment Vacuum Relief

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV25704A2	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	2Y					AC RV SAAO A PI SOC
PSV25704B1	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC
				No	LTO	2Y					AC RV SAAO A PI SOC
				No	RPI	2Y					AC RV SAAO A PI SOC
PSV25704B2	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					AC RV SAAO A PI SOC
				No	LTO	2Y					AC RV SAAO A PI SOC
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 59 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Primary Containment Vacuum Relief

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV25704C1	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSO	2Y					AC RV SAAO A PI SOC
PSV25704C1	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	2Y					AC RV SAAO A PI SOC
				No	LTO	2Y					AC RV SAAO A PI SOC
				No	RPI	2Y					AC RV SAAO A PI SOC
PSV25704C2	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTO	2Y					AC RV SAAO A PI SOC
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSO	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC
				No	RPI	2Y					AC RV SAAO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 59 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Primary Containment Vacuum Relief

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV25704D1	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSO	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC
				No	LTO	2Y					AC RV SAAO A PI SOC
				No	RPI	2Y					AC RV SAAO A PI SOC
PSV25704D2	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					AC RV SAAO A PI SOC
				No	LTO	2Y					AC RV SAAO A PI SOC
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSO	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 59 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Primary Containment Vacuum Relief

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV25704E1	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSO	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC
				No	RPI	2Y					AC RV SAAO A PI SOC
				No	LTO	2Y					AC RV SAAO A PI SOC
PSV25704E2	F-4	24	RV	SA-AO	2	A/C	Active	C	O/C	N/A	
PRI CONTN VACUUM RELIEF		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTO	2Y					AC RV SAAO A PI SOC
				No	RPI	2Y					AC RV SAAO A PI SOC
				No	RVT	2Y					AC RV SAAO A PI SOC
				No	FSO	2Y					AC RV SAAO A PI SOC
				No	FSC	2Y					AC RV SAAO A PI SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 61 P & ID: M-2144 Sh. 1 **SYSTEM DESCRIPTION:** Reactor Water Cleanup

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV244F001	B-2	6	GT	MO	1	A	Active	O	C	N/A	
RWCU INLET IB ISO		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-13
				No	RPI	2Y					A GT MO A PI SCJ
				No	LTJ	J					A GT MO A PI SCJ
				No	STC	RO					2ROJ-13
HV244F004	B-2	6	GT	MO	1	A	Active	O	C	N/A	
RWCU INLET OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	RO					2ROJ-13
				No	LTJ	J					A GT MO A PI SCJ
				No	RPI	2Y					A GT MO A PI SCJ
				No	FSC	RO					2ROJ-13
XV24411A	A-2	1	XC	SA	1	C	Active	SYS	C	N/A	
RWCU EXCESS FLOW CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 61 P & ID: M-2144 Sh. 1 **SYSTEM DESCRIPTION:** Reactor Water Cleanup

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV24411B	B-2	1	XC	SA	1	C	Active	SYS	C	N/A	
RWCU EXCESS FLOW CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
XV24411B	B-2	1	XC	SA	1	C	Active	SYS	C	N/A	
RWCU EXCESS FLOW CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	10Y					2RR01
XV24411C	D-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RWCU EXCESS FLOW CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV24411D	E-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RWCU EXCESS FLOW CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 61 P & ID: M-2144 Sh. 1 **SYSTEM DESCRIPTION:** Reactor Water Cleanup

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV244F046	G-3	1	XC	SA	1	C	Active	SYS	C	N/A	
RWCU EXCESS FLOW CHECK VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

HV241F001	A-2	2	GB	MO	1	B	Passive	C	C	N/A	
RX HEAD VENT VENT TO DRWL EQUIP DRN TANK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB MO P PI SC

HV241F002	A-1	2	GB	MO	1	B	Passive	C	C	N/A	
RX HEAD VENT VENT TO DRWL EQUIP DRN TANK		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB MO P PI SC

XV24201	G-3	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV24202	B-7	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F041	B-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
XV242F041	B-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	10Y					2RR01
XV242F043A	B-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F043B	B-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F045A	D-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F045B	D-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F047A	C-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F047B	C-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F051A	F-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F051B	F-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F051C	F-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F051D	F-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F053A	B-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F053B	E-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F053C	E-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F053D	E-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F055	G-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F057	G-4	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F059A	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059B	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059C	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F059D	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059E	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059F	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F059G	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059H	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059L	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F059M	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059N	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059P	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F059R	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059S	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F059T	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 62 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Nuclear Boiler Vessel Instrumentation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV242F059U	E-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV242F061	H-6	1	XC	SA	1	C	Active	SYS	C	N/A	
Nuclear Boiler Vessel Instrumentation XFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

243F013A	E-5	1	CK	SA	2	A/C	Active	SYS	C	N/A	
CRD CKV TO RRP A SEAL CHMBR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					AC CK SA A SC J CM
				No	FSC	CM					2CMP-RR-1
				No	FSO	C					2CMP-RR-1

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
243F013B	E-5	1	CK	SA	2	A/C	Active	SYS	C	N/A	
CRD CKV TO RRP B SEAL CHMBR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RR-1
				No	FSO	C					2CMP-RR-1
				No	LTJ	J					AC CK SA A SC J CM
HV243F019	B-4	0.75	GB	AO	1	A	Active	O	C	C	
RECIRCULATION LOOP B SAMPLE ISOL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					A GB AO A FC PI SC J
				No	STC	M3					A GB AO A FC PI SC J
				No	FTC	M3					A GB AO A FC PI SC J
				No	LTJ	J					A GB AO A FC PI SC J
				No	RPI	2Y					A GB AO A FC PI SC J
HV243F020	B-4	1	GB	AO	1	A	Active	O	C	C	
RECIRCULATION LOOP B SAMPLE ISOL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB AO A FC PI SC J
				No	LTJ	J					A GB AO A FC PI SC J
				No	FTC	M3					A GB AO A FC PI SC J
				No	STC	M3					A GB AO A FC PI SC J
				No	FSC	M3					A GB AO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV243F031A	F-8	28	GT	MO	1	B	Active	O	C	N/A	
RECIRC PUMP A DSCH		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CS					2CSJ-07
				No	RPI	2Y					B GT MO A PI SC
				No	STC	CS					2CSJ-07
HV243F031B	F-8	28	GT	MO	1	B	Active	O	C	N/A	
RECIRC PUMP B DSCH		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-07
				No	RPI	2Y					B GT MO A PI SC
				No	FSC	CS					2CSJ-07
HV243F032A	F-8	4	GT	MO	1	B	Active	O	C	N/A	
RECIRC PUMP A DSCH BYPS		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CS					2CSJ-24
				No	RPI	2Y					B GT MO A PI SC
				No	STC	CS					2CSJ-24

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV243F032B	F-8	4	GT	MO	1	B	Active	O	C	N/A	
RECIRC PUMP B DSCH BYPS		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-24
				No	RPI	2Y					B GT MO A PI SC
				No	FSC	CS					2CSJ-24
XV243F003A	E-2	1	XC	SA	2	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F003B	G-2	1	XC	SA	2	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV243F004A	E-2	1	XC	SA	2	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F004B	G-2	1	XC	SA	2	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F009A	D-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV243F009B	F-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F009C	E-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F009D	G-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV243F010A	D-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F010B	F-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F010C	E-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV243F010D	G-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F011A	D-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F011B	F-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 ***SYSTEM DESCRIPTION:*** *Reactor Recirculation*

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV243F011C	E-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F011D	G-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F012A	D-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV243F012B	F-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F012C	E-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F012D	G-2	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV243F017A	F-3	1	XC	SA	2	A/C	Active	SYS	C	N/A	
REACTOR RECIRC PUMP SEAL WATER SUPPLY LINE EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CM					2CMP-RR-2
				No	FSO	C					2CMP-RR-2
				No	RPI	2Y					AC XC SA A PI SC J
				No	LTJ	J					AC XC SA A PI SC J
XV243F017B	H-2	1	XC	SA	2	A/C	Active	SYS	C	N/A	
REACTOR RECIRC PUMP SEAL WATER SUPPLY LINE EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					AC XC SA A PI SC J
				No	LTJ	J					AC XC SA A PI SC J
				No	FSC	CM					2CMP-RR-2
				No	FSO	C					2CMP-RR-2
XV243F040A	H-3	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV243F040B	H-3	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
XV243F040B	H-3	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	10Y					2RR01
XV243F040C	H-3	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F040D	H-3	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 64 P & ID: M-2143 Sh. 2 **SYSTEM DESCRIPTION:** Reactor Recirculation

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV243F057A	B-3	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV243F057B	C-3	1	XC	SA	1	C	Active	SYS	C	N/A	
Reactor Recirculation Instrumentation EFC		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

SYSTEM: 69 P & ID: M-2161 Sh. 1 **SYSTEM DESCRIPTION:** Liquid RadWaste

HV26108A1	B-3	3	GT	AO	2	A	Active	C	C	C	
DRYWELL FLOOR DRAIN SUMP PUMP DISCHARGE ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GT AO A FC PI SC J
				No	LTJ	J					A GT AO A FC PI SC J
				No	RPI	2Y					A GT AO A FC PI SC J
				No	FSC	M3					A GT AO A FC PI SC J
				No	FTC	M3					A GT AO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 69 P & ID: M-2161 Sh. 1 **SYSTEM DESCRIPTION:** Liquid RadWaste

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV26108A2	B-5	3	GT	AO	2	A	Active	C	C	C	
DRYWELL FLOOR DRAIN SUMP PUMP DISCHARGE ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					A GT AO A FC PI SC J
				No	FSC	M3					A GT AO A FC PI SC J
				No	RPI	2Y					A GT AO A FC PI SC J
				No	LTJ	J					A GT AO A FC PI SC J
HV26108A2	B-5	3	GT	AO	2	A	Active	C	C	C	
DRYWELL FLOOR DRAIN SUMP PUMP DISCHARGE ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GT AO A FC PI SC J
HV26116A1	G-3	3	GT	AO	2	A	Active	C	C	C	
DRYWELL EQUIPMENT DRAIN TANK DISCHARGE ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GT AO A FC PI SC J
				No	LTJ	J					A GT AO A FC PI SC J
				No	RPI	2Y					A GT AO A FC PI SC J
				No	FSC	M3					A GT AO A FC PI SC J
				No	FTC	M3					A GT AO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 69 P & ID: M-2161 Sh. 1 **SYSTEM DESCRIPTION:** Liquid RadWaste

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV26116A2	H-3	3	GT	AO	2	A	Active	C	C	C	
DRYWELL EQUIPMENT DRAIN TANK DISCHARGE ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					A GT AO A FC PI SC J
				No	FSC	M3					A GT AO A FC PI SC J
				No	RPI	2Y					A GT AO A FC PI SC J
				No	LTJ	J					A GT AO A FC PI SC J
				No	STC	M3					A GT AO A FC PI SC J

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

HV25703	E-3	18	BF	AO	2	A	Active	C	C	C	
SUPPRESSION CHAMBER PURGE EXHAUST UPSTRM ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-13
				No	RPI	2Y					A BF AO A FC PI SC J
				No	LTJ	J					A BF AO A FC PI SC J
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV25704	E-2	18	BF	AO	2	A	Active	C	C	C	
SUPPRESSION CHAMBER PURGE EXHAUST DWNSTRM ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J
				No	STC	CS					2CSJ-13
HV25705	D-2	2	BF	AO	2	A	Active	C	C	C	
SUPPRESSION CHAMBER PURGE EXHAUST BYPASS ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-13
				No	RPI	2Y					A BF AO A FC PI SC J
				No	LTJ	J					A BF AO A FC PI SC J
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV25711	A-3	2	BF	AO	2	A	Active	C	C	C	
DRYWELL PURGE EXHAUST BYPASS ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J
				No	STC	CS					2CSJ-13
HV25713	B-4	24	BF	AO	2	A	Active	C	C	C	
DRYWELL PURGE EXHAUST UPSTRM ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-13
				No	RPI	2Y					A BF AO A FC PI SC J
				No	LTJ	J					A BF AO A FC PI SC J
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV25714	B-2	24	BF	AO	2	A	Active	C	C	C	
DRYWELL PURGE EXHAUST DWNSTRM ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-13
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J
HV25721	C-8	6	BF	AO	2	A	Active	C	C	C	
CONTN N2 PURGE OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A BF AO A FC PI SC J
				No	LTJ	J					A BF AO A FC PI SC J
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13
				No	STC	CS					2CSJ-13

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV25722	C-5	24	BF	AO	2	A	Active	C	C	C	
DRYWELL N2 PURGE ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-13
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J
HV25723	D-7	24	BF	AO	2	A	Active	C	C	C	
DRYWELL AIR PURGE ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A BF AO A FC PI SC J
				No	LTJ	J					A BF AO A FC PI SC J
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13
				No	STC	CS					2CSJ-13

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** *Containment Atmosphere Control*

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV25724	E-6	18	BF	AO	2	A	Active	C	C	C	
SUPPRESSION CHAMBER AIR PURGE ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-13
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13
				No	LTJ	J					A BF AO A FC PI SC J
				No	RPI	2Y					A BF AO A FC PI SC J
HV25725	E-5	18	BF	AO	2	A	Active	C	C	C	
SUPPRESSION CHAMBER N2 PURGE ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A BF AO A FC PI SC J
				No	LTJ	J					A BF AO A FC PI SC J
				No	FTC	CS					2CSJ-13
				No	FSC	CS					2CSJ-13
				No	STC	CS					2CSJ-13
HV25766	H-5	6	GT	MO	2	A	Active	C	C	N/A	
SUPP POOL WATER FILTER PUMP SUCTION IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	M3					A GT MO A PI SCJ
				No	STC	M3					A GT MO A PI SCJ
				No	RPI	2Y					A GT MO A PI SCJ
				No	LTJ	J					A GT MO A PI SCJ

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV25768	H-4	6	GT	MO	2	A	Active	C	C	N/A	
SUPP POOL WATER FILTER PUMP SUCTION OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GT MO A PI SCJ
				No	RPI	2Y					A GT MO A PI SCJ
				No	STC	M3					A GT MO A PI SCJ
				No	FSC	M3					A GT MO A PI SCJ
SV257100A	B-3	1	GB	SO	2	A	Active	O	C	C	
A CRM SUPPLY IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	RPI	2Y					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV257100B	B-3	1	GB	SO	2	A	Active	O	C	C	
B CRM IB SUPPLY ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

SV257101A	B-3	1	GB	SO	2	A	Active	O	C	C	
A CRM SUPPLY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV257101B	B-3	1	GB	SO	2	A	Active	O	C	C	
B CRM SUPPLY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	RPI	2Y					A GB SO A FC PI SC J
SV257102A	C-3	1	GB	SO	2	A	Active	O	C	C	
A CRM RETURN IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV257102B	C-3	1	GB	SO	2	A	Active	O	C	C	
B CRM RETURN IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	RPI	2Y					A GB SO A FC PI SC J
SV257103A	C-3	1	GB	SO	2	A	Active	O	C	C	
A CRM RETURN OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV257103B	C-3	1	GB	SO	2	A	Active	O	C	C	
B CRM RETURN OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	RPI	2Y					A GB SO A FC PI SC J
SV257104	E-3	1	GB	SO	2	A	Active	C	C	C	
WW SAMPLE RACK SUPPLY IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV257105	E-3	1	GB	SO	2	A	Active	C	C	C	
WW SAMPLE RACK SUPPLY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	RPI	2Y					A GB SO A FC PI SC J
SV257106	F-3	1	GB	SO	2	A	Active	C	C	C	
WW SAMPLE RACK RETURN IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV257107	F-3	1	GB	SO	2	A	Active	C	C	C	
WW SAMPLE RACK RETURN OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J
SV25734A	G-2	1	GB	SO	2	A	Active	C	C	C	
SUPPRESSION POOL ATMOS SMPL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** *Containment Atmosphere Control*

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25734B	E-6	1	GB	SO	2	A	Active	C	C	C	
SUPPRESSION POOL ATMOS SMPL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

SV25736A	G-3	1	GB	SO	2	A	Active	C	C	C	
SUPPRESSION POOL ATMOS SMPL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25736B	E-6	1	GB	SO	2	A	Active	C	C	C	
SUPPRESSION POOL ATMOS SMPL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J
SV25737	G-6	1	GB	SO	2	A	Active	C	C	C	
SUPP CHMBR N2 MAKEUP IB ISO		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25738	G-6	1	GB	SO	2	A	Active	C	C	C	
SUPP CHMBR N2 MAKEUP OB ISO		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	RPI	2Y					A GB SO A FC PI SC J
SV25740A	B-4	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25740B	B-5	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

SV25742A	B-3	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25742B	B-6	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J
SV25750A	C-4	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25750B	B-5	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J
SV25752A	C-3	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25752B	B-6	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

SV25767	C-5	1	GB	SO	2	A	Active	C	C	C	
DRYWELL N2 MAKEUP SUPPLY IB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25774A	C-3	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE RETRN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J
SV25774B	D-6	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE RETRN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25776A	C-4	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE RETRN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J
SV25776B	D-5	1	GB	SO	2	A	Active	C	C	C	
PRI CONTN ATMOS SAMPLE RETRN		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25780A	F-3	1	GB	SO	2	A	Active	C	C	C	
SUPPRESSION POOL ATMOS SMPL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

SV25780B	F-6	1	GB	SO	2	A	Active	C	C	C	
SUPPRESSION POOL ATMOS SMPL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25782A	F-2	1	GB	SO	2	A	Active	C	C	C	
SUPPRESSION POOL ATMOS SMPL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J
SV25782B	F-6	1	GB	SO	2	A	Active	C	C	C	
SUPPRESSION POOL ATMOS SMPL		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	STC	M3					A GB SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 73 P & ID: M-2157 Sh. 1 **SYSTEM DESCRIPTION:** Containment Atmosphere Control

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
SV25789	C-6	1	GB	SO	2	A	Active	C	C	C	
DRYWELL N2 MAKEUP SUPPLY OB ISO VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	M3					A GB SO A FC PI SC J
				No	FTC	M3					A GB SO A FC PI SC J
				No	FSC	M3					A GB SO A FC PI SC J
				No	LTJ	2Y					A GB SO A FC PI SC J
				No	RPI	2Y					A GB SO A FC PI SC J

SYSTEM: 78 P & ID: **SYSTEM DESCRIPTION:** TIPS - Transversing Incore Probe System

2S240A TIP BALL		0.375	BA	SO	S	A	Active	C	C	C	
TIP CHANNEL A BALL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					A BA SO A FC PI SC J
				No	FSC	M3					A BA SO A FC PI SC J
				No	RPI	2Y					A BA SO A FC PI SC J
				No	LTJ	J					A BA SO A FC PI SC J
				No	STC	M3					A BA SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 78 P & ID: **SYSTEM DESCRIPTION:** TIPS - Transversing Incore Probe System

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
2S240B TIP BALL		0.375	BA	SO	S	A	Active	C	C	C	
TIP CHANNEL B BALL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					A BA SO A FC PI SC J
				No	FSC	M3					A BA SO A FC PI SC J
2S240B TIP BALL		0.375	BA	SO	S	A	Active	C	C	C	
TIP CHANNEL B BALL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					A BA SO A FC PI SC J
				No	LTJ	J					A BA SO A FC PI SC J
				No	STC	M3					A BA SO A FC PI SC J
2S240C TIP BALL		0.375	BA	SO	S	A	Active	C	C	C	
TIP CHANNEL C BALL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					A BA SO A FC PI SC J
				No	FSC	M3					A BA SO A FC PI SC J
				No	RPI	2Y					A BA SO A FC PI SC J
				No	LTJ	J					A BA SO A FC PI SC J
				No	STC	M3					A BA SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 78 P & ID: **SYSTEM DESCRIPTION:** TIPS - Transversing Incore Probe System

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
2S240D TIP BALL		0.375	BA	SO	S	A	Active	C	C	C	
TIP CHANNEL D BALL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					A BA SO A FC PI SC J
				No	FSC	M3					A BA SO A FC PI SC J
				No	RPI	2Y					A BA SO A FC PI SC J
				No	LTJ	J					A BA SO A FC PI SC J
				No	STC	M3					A BA SO A FC PI SC J

2S240E TIP BALL		0.375	BA	SO	S	A	Active	C	C	C	
TIP CHANNEL E BALL VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	M3					A BA SO A FC PI SC J
				No	FSC	M3					A BA SO A FC PI SC J
				No	RPI	2Y					A BA SO A FC PI SC J
				No	LTJ	J					A BA SO A FC PI SC J
				No	STC	M3					A BA SO A FC PI SC J

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F024A	A-5	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-04
				No	FSO	RO					2ROJ-04
241F024B	A-5	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-04
				No	FSO	RO					2ROJ-04
241F024C	A-5	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-04
				No	FSO	RO					2ROJ-04
241F024D	A-5	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-04
				No	FSO	RO					2ROJ-04

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F029A	A-7	1	CK	SA	3	C	Active	SYS	C	N/A	
MN STM LINE A ISO VLV AIR SUP CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-04
				No	FSO	RO					2ROJ-04
241F029B	A-7	1	CK	SA	3	C	Active	SYS	C	N/A	
MN STM LINE B ISO VLV AIR SUP CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-04
				No	FSO	RO					2ROJ-04
241F029C	A-7	1	CK	SA	3	C	Active	SYS	C	N/A	
MN STM LINE C ISO VLV AIR SUP CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-04
				No	FSO	RO					2ROJ-04
241F029D	A-7	1	CK	SA	3	C	Active	SYS	C	N/A	
MN STM LINE D ISO VLV AIR SUP CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-04
				No	FSO	RO					2ROJ-04

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F036A	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036B	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036C	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036D	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F036E	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036F	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036G	D-3	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036H	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F036J	D-3	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036K	D-3	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036L	D-3	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036M	D-3	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F036N	D-3	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036P	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036R	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05
241F036S	B-4	1	CK	SA	3	C	Active	SYS	C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-05
				No	FSO	RO					2ROJ-05

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F040G	D-4	1	CK	SA	3	C	Active	SYS	O/C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-06
				No	FSO	RO					2ROJ-06
241F040J	D-4	1	CK	SA	3	C	Active	SYS	O/C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-06
				No	FSO	RO					2ROJ-06
241F040K	D-4	1	CK	SA	3	C	Active	SYS	O/C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-06
				No	FSO	RO					2ROJ-06
241F040L	D-4	1	CK	SA	3	C	Active	SYS	O/C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-06
				No	FSO	RO					2ROJ-06

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
241F040M	D-4	1	CK	SA	3	C	Active	SYS	O/C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-06
				No	FSO	RO					2ROJ-06
241F040N	D-4	1	CK	SA	3	C	Active	SYS	O/C	N/A	
CONTN INSTR GAS CKV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-06
				No	FSO	RO					2ROJ-06
HV20107	G-3	4	GB	MO	2	B	Active	O	C	N/A	
MN STM SUP TO SJAE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB MO A PI SC
				No	STC	CS					2CSJ-01
				No	FSC	CS					2CSJ-01
HV20109	F-1	8	GT	MO	2	B	Active	O	C	N/A	
SSE MAIN STEAM SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	CS					2CSJ-01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV20109	F-1	8	GT	MO	2	B	Active	O	C	N/A	
SSE MAIN STEAM SUPPLY		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-01
				No	RPI	2Y					B GT MO A PI SC
HV20111	G-1	8	GT	MO	2	B	Active	O	C	N/A	
RFPT MAIN STEAM SUP ISO		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GT MO A PI SC
				No	STC	CS					2CSJ-01
				No	FSC	CS					2CSJ-01
HV241F016	E-6	3	GT	MO	1	A	Active	C	C	N/A	
MN STM LINE IB DRAIN TO CDSR		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	RO					2ROJ-07
				No	RPI	2Y					A GT MO A PI SCJ
				No	LTJ	J					A GT MO A PI SCJ
				No	STC	RO					2ROJ-07

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV241F019	E-6	3	GT	MO	1	A	Active	C	C	N/A	
MN STM LINE OB DRAIN VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-17
				No	LTJ	J					A GT MO A PI SCJ
				No	RPI	2Y					A GT MO A PI SCJ
				No	FSC	CS					2CSJ-17
HV241F020	E-7	3	GB	MO	2	B	Passive	O	O	N/A	
OUTBOARD MSIV DOWNSTREAM DRAIN ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	2Y					B GB MO P PI SO
HV241F021	E-8	3	GB	MO	NS	B	Active	C	O	N/A	
MSL DRAIN HEADER ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSO	CS					2CSJ-05
				No	RPI	2Y					B GB MO A PI SO
				No	STO	CS					2CSJ-05

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV241F022A	C-5	26	GB	AO	1	A	Active	O	C	C	
"A" MAIN STEAM LINE INBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-06
				No	FSC	CS					2CSJ-06
				No	LTJ	J					A GB AO A FC PI SC J
				No	RPI	2Y					A GB AO A FC PI SC J
				No	FTC	RO					2ROJ-17
HV241F022B	F-5	26	GB	AO	1	A	Active	O	C	C	
"B" MAIN STEAM LINE INBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	RO					2ROJ-17
				No	RPI	2Y					A GB AO A FC PI SC J
				No	LTJ	J					A GB AO A FC PI SC J
				No	FSC	CS					2CSJ-06
HV241F022B	F-5	26	GB	AO	1	A	Active	O	C	C	
"B" MAIN STEAM LINE INBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-06

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV241F022C	G-5	26	GB	AO	1	A	Active	O	C	C	
"C" MAIN STEAM LINE INBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-06
				No	FSC	CS					2CSJ-06
				No	LTJ	J					A GB AO A FC PI SC J
				No	RPI	2Y					A GB AO A FC PI SC J
				No	FTC	RO					2ROJ-17
HV241F022D	H-5	26	GB	AO	1	A	Active	O	C	C	
"D" MAIN STEAM LINE INBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	RO					2ROJ-17
				No	RPI	2Y					A GB AO A FC PI SC J
				No	LTJ	J					A GB AO A FC PI SC J
				No	FSC	CS					2CSJ-06
				No	STC	CS					2CSJ-06
HV241F028A	C-6	26	GB	AO	1	A	Active	O	C	C	
"A" MAIN STEAM LINE OUTBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-06
				No	FSC	CS					2CSJ-06

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV241F028A	C-6	26	GB	AO	1	A	Active	O	C	C	
"A" MAIN STEAM LINE OUTBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	LTJ	J					A GB AO A FC PI SC J
				No	RPI	2Y					A GB AO A FC PI SC J
				No	FTC	RO					2ROJ-17
HV241F028B	F-6	26	GB	AO	1	A	Active	O	C	C	
"B" MAIN STEAM LINE OUTBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	RO					2ROJ-17
				No	RPI	2Y					A GB AO A FC PI SC J
				No	LTJ	J					A GB AO A FC PI SC J
				No	FSC	CS					2CSJ-06
				No	STC	CS					2CSJ-06

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
HV241F028C	G-6	26	GB	AO	1	A	Active	O	C	C	
"C" MAIN STEAM LINE OUTBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	STC	CS					2CSJ-06
				No	FSC	CS					2CSJ-06
				No	LTJ	J					A GB AO A FC PI SC J
				No	RPI	2Y					A GB AO A FC PI SC J
				No	FTC	RO					2ROJ-17
HV241F028D	H-6	26	GB	AO	1	A	Active	O	C	C	
"D" MAIN STEAM LINE OUTBOARD ISOLATION VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FTC	RO					2ROJ-17
				No	RPI	2Y					A GB AO A FC PI SC J
				No	LTJ	J					A GB AO A FC PI SC J
				No	FSC	CS					2CSJ-06
				No	STC	CS					2CSJ-06
PSV24137A	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV24137B	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137C	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137D	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137E	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137F	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV24137F	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137G	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137H	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137J	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137K	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV24137L	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137M	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137N	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137P	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV24137R	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV24137S	H-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F013A	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"A" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013B	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"C" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013C	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"A" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013D	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"D" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV241F013E	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"A" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013F	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"D" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013G	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"A" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013H	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"B" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013J	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"B" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV241F013K	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"D" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013L	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"C" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013M	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"B" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013N	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"D" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013P	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"B" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV241F013R	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"C" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F013S	C-3	6	RV	SA-AO	1	C	Active	C	O/C	N/A	
"A" MAIN STEAM LINE SAFETY / RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	6Y					2RR03
PSV241F037A	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037B	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037C	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV241F037D	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037E	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037F	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037G	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037H	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV241F037J	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037K	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037L	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037M	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037N	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
PSV241F037P	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037R	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
PSV241F037S	G-4	6	RV	SA	3	C	Active	C	O/C	N/A	
MSL SAFETY / RELIEF VALVE VACUUM RELIEF VALVE		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RVT	10Y					C RV SA A SOC
XV241F070A	D-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** *Main Steam*

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV241F070B	F-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV241F070C	G-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
XV241F070C	G-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	RPI	10Y					2RR01
XV241F070D	H-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV241F071A	D-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV241F071B	F-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV241F071C	G-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV241F071D	H-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV241F072A	D-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV241F072B	F-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV241F072C	G-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV241F072D	H-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV241F073A	D-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment B, VALVE TABLE-SUMMARY LISTING, Continued

SYSTEM: 83 P & ID: M-2141 Sh. 1 **SYSTEM DESCRIPTION:** Main Steam

VALVE NO.	P & ID COOR.	SIZE									
DESCRIPTION		COMP. EXEMPT	TYPE	ACTUATOR	CLASS	CATEGORY	ACTIVE	NP	SP	FP	
XV241F073B	F-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV241F073C	G-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01
XV241F073D	H-7	1	XC	SA	1	C	Active	SYS	C	N/A	
MSL FLOW INSTRUMENTATION EXCESS FLOW CK VLV		No		EXEMPT TEST	TEST	FREQ					NOTES
				No	FSC	10Y					2RR01
				No	FSO	10Y					2RR01
				No	RPI	10Y					2RR01

Attachment C, COLD SHUTDOWN JUSTIFICATION

Code: 2CSJ-01

System: MSIV – Leakage Alternate Treatment Method

Valves: HV20107, HV20109, and HV20111

Category: B

Class: 2

A. FUNCTION:

1. Valve HV20107 is the Main Steam supply to the Steam Jet Air Ejector. Valve HV20109 is the Main Steam supply to the Steam Seal Evaporator. Valve HV20111 is the Main Steam supply to the Reactor Feed Pump Turbine. These valves have a closed safety function to prevent flow diversion for the Main Steam Isolation Valve Isolated Condenser Treatment function.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These valves cannot be full-stroke exercised closed during normal (power) operation since closing these valves would stop steam flow to the Steam Jet Air Ejector, Steam Seal Evaporator, and Reactor Feed Pump Turbine. Interruption of steam flow to these components will result in a reactor scram due to loss of Reactor Feed Pumps or loss of condenser vacuum.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this would reduce steam flow to these components. This will result in a reactor scram due to loss of Reactor Feed Pumps or loss of condenser vacuum.

E. COLD SHUTDOWN TESTING:

1. This valve will be exercised closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code:	2CSJ-02
System:	Reactor Building Closed Cooling Water
Valves:	HV21313, HV21314, HV21345, HV21346
Category:	A
Class:	2

A. FUNCTION:

1. Valve HV21313 is the Reactor Building Closed Cooling Water Containment Return Outboard Isolation Valve. Valve HV21314 is the Reactor Building Closed Cooling Water Containment Supply Outboard Isolation Valve. Valve HV21345 is the Reactor Building Closed Cooling Water Inboard Containment Isolation MOV Reactor Recirculation Pump A/B Seal & Motor Oil Cooler Return Valve. Valve HV21346 is the Reactor Building Closed Cooling Water Inboard Containment Isolation MOV Reactor Recirculation Pump A/B Seal & Motor Oil Cooler Supply Valve. These valves have a safety function to close for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These valves cannot be full-stroke exercised closed during normal (power) operation since the valves are in the cooling water supply and return lines for the reactor recirculation pump bearing and seal coolers. Interruption of cooling water flow to these components may result in damage to the pump bearings or seal failure.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this would reduce cooling water flow to these components that may result in damage to the pump bearings or seal failure.

E. COLD SHUTDOWN TESTING:

1. This valve will be exercised closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code:	2CSJ-03
System:	Containment Instrument Gas
Valves:	SV22651
Category:	A
Class:	2

A. FUNCTION:

1. Valve SV22651 is the Instrument Gas supply to valves in Containment. This valve has a close safety function for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510) and Fail-Safe (ISTC-3560)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. This valve cannot be full-stroke exercised closed or fail-safe tested closed during normal (power) operation since this valve supplies instrument gas to several important valves inside containment such as the Main Steam Safety Relief Valves (non-ADS function) and the Main Steam Isolation Valves. This could compromise the ability of the Safety Relief Valves to operate in the relief mode and could also cause the Main Steam Isolation Valves to close, resulting in a severe plant transient.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this could compromise the ability of the Safety Relief Valves to operate in the relief mode and could also cause the Main Steam Isolation Valves to close, resulting in a severe plant transient.

E. COLD SHUTDOWN TESTING:

1. This valve will be exercised closed and fail-safe tested closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code:	2CSJ-04
System:	Containment Instrument Gas
Valves:	SV22654A and SV22654B
Category:	A
Class:	2

A. FUNCTION:

1. Valve SV22654A is the Instrument Gas supply to Main Steam Safety Relief Valves PSV241F013G, J and M. Valve SV12654B is the Instrument Gas supply to Main Steam Safety Relief Valves PSV241F013K, L and N. These valves have an open safety function to supply instrument gas from the safety-related bottles to the Main Steam Safety Relief Valves and a close safety function for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510) and Fail-Safe (ISTC-3560)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These valves cannot be full-stroke exercised or fail-safe tested during normal (power) operation since these valves supply instrument gas to the ADS solenoid valves of the Main Steam Safety Relief Valves. Interrupting the instrument gas supply will compromise the ability to provide the opening motive force for the ADS valves in support of the long-term cooling ECCS function. Each of the valves isolates one train of instrument gas supply to the Automatic Depressurization System (ADS) Safety Relief Valves which renders 3 of the 6 ADS Safety Relief Valves inoperable and will put the Unit in a 12 hour Limiting Condition of Operation. This significantly reduces ADS protection beyond the one ADS Safety Relief Valve inoperable limit of Technical Specification 3.5.1.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this could compromise the ability of the ADS Safety Relief Valves to operate in support of the long-term cooling ECCS function. Each of the valves isolates one train of instrument gas supply to the ADS Safety Relief Valves which renders 3 of the 6 ADS Safety Relief Valves inoperable and will put the Unit in a 12 hour Limiting Condition of Operation. This significantly reduces ADS protection beyond the one ADS Safety Relief Valve inoperable limit of Technical Specification 3.5.1.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-04 (Continued)

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised tested open and closed and fail-safe tested closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-05

System: MSIV – Leakage Alternate Treatment Method

Valves: HV241F021

Category: B

Class: S

A. FUNCTION:

1. Valve HV241F021 is the Main Steam Line Drain to Condenser Valve. This valve has an open safety function to provide a flow path for the Main Steam Isolation Valve Isolated Condenser Treatment function.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. This valve cannot be full-stroke exercised open during normal (power) operation since it would require isolation of the outboard Main Steam Line Drain valve and may induce pressure transients in the Main Steam lines and increase the probability of a reactor scram, main steam line isolation and/or SRV actuation.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the same reasons cited above.

E. COLD SHUTDOWN TESTING:

1. This valve will be exercised open during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code:	2CSJ-06
System:	Nuclear Boiler
Valves:	HV241F022A, B, C, D and HV241F028A, B, C, D
Category:	A
Class:	1

A. FUNCTION:

1. Valves HV241F022A, B, C, D are the Main Steam Line A, B, C, D Inboard Isolation Valves, respectively. Valves HV241F028A, B, C, D are Main Steam Line A, B, C, D Outboard Isolation valves, respectively. These valves have a closed safety function for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These valves cannot be full-stroke exercised during normal (power) operation since full stroke testing would cause an interruption in steam flow that would induce a reactor pressure transient with increased probability of reactor scram, main steam line isolation, and Main Steam Safety Relief Valve actuation.

D. QUARTERLY PARTIAL STROKE TESTING:

1. These valves are partially stroked closed at least once per quarter in conjunction with the Reactor Protection System (RPS) channel functional testing in accordance with Technical Specification Surveillance Requirement SR 3.3.1.1.9.

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-07

System: Reactor Recirculation

Valves: HV243F031A, B

Category: B

Class: 1

A. FUNCTION:

1. Valves HV243F031A, B are the Reactor Recirculation Pump Discharge valves. These valves have a closed safety function to prevent diversion of ECCS flow into the Reactor Vessel.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. The recirculation pump discharge isolation valves are in the main flow path of the reactor recirculation system, which is necessary to maintain reactivity control of the reactor. Cycling of these valves during power operations would interrupt the driving core flow, possibly resulting in severe changes in core power level.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since even partial cycling of these valves during power operations would interrupt the driving core flow, possibly resulting in severe changes in core power level.

E. COLD SHUTDOWN TESTING:

1. This valve will be exercised closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

2. Technical Specification Surveillance Requirement 3.5.1.6 provides for and controls the exercising of these valves prior to exceeding 25% power during each startup if not completed within the previous 31 days.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code:	2CSJ-08
System:	Residual Heat Removal
Valves:	HV251F015A, HV251F015B, HV251F022, and HV251F023
Category:	A
Class:	1

A. FUNCTION:

1. Valves HV251F015A and HV251F015B are the outboard Low Pressure Coolant (LPCI) injection valves. They have an open safety function to supply ECCS flow to the Reactor Vessel and a close safety function for containment isolation and high-pressure to low-pressure isolation.

2. Valves HV251F022 and HV251F023 are the inboard and outboard reactor head spray valves. They have a close safety function for containment isolation and high-pressure to low-pressure isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These normally closed isolation valves serve as the pressure isolation between Residual Heat Removal system piping and reactor coolant pressure. In accordance with guidance presented in NRC Information Notice 84-74 and previous NRC concerns regarding intersystem LOCAs, cycling these valves every quarter during power operation increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure). Maintenance history on these valves has shown that excessive cycling at pressure will reduce the leak tightness of the valves. In addition, failure of these valves during testing to positively re-seat could cause loss of Residual Heat Removal system function.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this would also increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure).

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-08 (Continued)

E. COLD SHUTDOWN TESTING:

1. Valves HV251F015A and HV251F015B will be exercised open and closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c).

2. Valves HV251F022 and HV251F023 will be exercised closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code:	2CSJ-09
System:	Residual Heat Removal
Valves:	HV251F050A and HV251F050B
Category:	A/C
Class:	1

A. FUNCTION:

1. Valves HV251F050A and HV251F050B are the inboard Low Pressure Coolant (LPCI) Injection valves. They have an open safety function to supply ECCS flow to the Reactor Vessel and a close safety function for high-pressure to low-pressure isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These normally closed isolation valves serve as the pressure isolation between Residual Heat Removal system piping and reactor coolant pressure. In accordance with guidance presented in NRC Information Notice 84-74 and previous NRC concerns regarding intersystem LOCAs, cycling these valves every quarter during power operation increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure). Maintenance history on these valves has shown that excessive cycling at pressure will reduce the leak tightness of the valves. In addition, failure of these valves during testing to positively re-seat could cause loss of Residual Heat Removal system function.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this would also increase the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure).

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised open and close during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-10

System: Residual Heat Removal

Valves: HV251F008 and HV251F009

Category: A

Class: 1

A. FUNCTION:

1. Valves HV251F008 and HV251F009 are the Residual heat Removal Shutdown Cooling valves. They have a close safety function for containment isolation and high-pressure to low-pressure isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These normally closed isolation valves are only required to open when bringing the unit to a cold shutdown condition, providing the flow path for the shutdown cooling mode of Residual Heat Removal. In accordance with guidance presented in NRC Information Notice 84-74 and previous NRC concerns regarding intersystem LOCAs, cycling these valves every quarter during power operation increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure). During reactor operations above approximately 100 psig, interlocks inhibit cycling of these valves for the express purpose of protecting low pressure piping.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this would also increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure).

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code:	2CSJ-11
System:	Core Spray
Valves:	HV252F005A and HV252F005B
Category:	A
Class:	1

A. FUNCTION:

1. Valves HV252F005A and HV252F005B are the outboard Core Spray Injection valves. They have an open safety function to supply ECCS flow to the Reactor Vessel and a close safety function for containment isolation and high-pressure to low-pressure isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These normally closed isolation valves serve as the pressure isolation between Core Spray system piping and reactor coolant pressure. In accordance with guidance presented in NRC Information Notice 84-74 and previous NRC concerns regarding intersystem LOCAs, cycling these valves every quarter during power operation increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure). In addition, failure of these valves during testing to positively re-seat could cause loss of Core Spray system function.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this would also increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure).

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised open and closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code:	2CSJ-12
System:	Core Spray
Valves:	HV252F006A and HV252F006B
Category:	A/C
Class:	1

A. FUNCTION:

1. Valves HV252F006A and HV252F006B are the inboard Core Spray Injection valves. They have an open safety function to supply ECCS flow to the Reactor Vessel and a close safety function for containment isolation and high-pressure to low-pressure isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These normally closed isolation valves serve as the pressure isolation between Core Spray system piping and reactor coolant pressure. In accordance with guidance presented in NRC Information Notice 84-74 and previous NRC concerns regarding intersystem LOCAs, cycling these valves every quarter during power operation increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure). Maintenance history on these valves has shown that excessive cycling at pressure will reduce the leak tightness of the valves. In addition, failure of these valves during testing to positively re-seat could cause loss of Core Spray system function.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this would also increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure).

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised open and closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-13

System: Core Spray

Valves: HV25703, HV25704, HV25705, HV25711, HV25713, HV25714, HV25721, HV25722, HV25723, HV25724, and HV25725

Category: A

Class: 2

A. FUNCTION:

1. Valves HV25703, HV25704, HV25705, HV25711, HV25713, and HV25714 are the Containment Purge Exhaust valves. They have a close safety function for containment isolation. Valves HV25721, HV25722, HV25723, HV25724, and HV25725 are the Containment Purge Supply valves. They have a close safety function for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510) and Fail-Safe (ISTC-3560)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These normally closed containment isolation valves on the containment purge inlet and exhaust lines are not opened during power operations except during startup for inerting purposes, during shutdown procedure to de-inert and the exhaust line is infrequently open to provide containment pressure control. It is not good practice to cycle a normally closed containment isolation valve, as this increases the possibility of failure in the open position, which increased the risk of offsite radiological consequences. If a LOCA occurs inside primary containment during power operation, the containment purge valves may not be capable of closing before the pressure pulse affects systems downstream of the purge valves, or the release of radioactive material will exceed limits prior to the purge valves closing. Technical Specification 3.6.1.3 limits conditions under which these valves may be open and thus limits the times that these valves may be open.

2. FSAR Section 6.2.4.3.3.1 states that containment isolation requirements are met on the basis that the purge lines up to the outboard isolation valves are normally closed low-pressure lines.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the reasons cited above.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-13 (Continued)

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised tested closed and fail-safe tested closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-14

System: Nuclear Boiler

Valves: HV241F032A and HV241F032B

Category: A/C

Class: 1

A. FUNCTION:

1. These valves are motor-operated stop check valves that function as the second outboard containment isolation valves in the Feedwater lines. They have a safety function to close to prevent diversion of High Pressure Coolant Injection and Reactor Core Isolation Cooling to the core and for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These valves are normally fully open during power operation. It is not practical to verify the motor operated closure function of these valves on a quarterly basis. The Feedwater system is required to maintain reactor water level and interruption of Feedwater to perform testing would result in a reactor scram. The check valve exercising (without motor operator) is performed on a refueling outage basis (Refer to Refueling Outage Justification 10).

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial close stroke testing is not practical for the reasons cited above.

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-15

System: Residual Heat Removal

Valves: HV251F122A and HV251F122B

Category: A

Class: 1

A. FUNCTION:

1. Valves HV251122A and HV251F122B are the equalizing valves around the inboard Low-Pressure Coolant (LPCI) Injection check valves. They have a close safety function for high-pressure to low-pressure isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510) and Fail-Safe (ISTC-3560)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These normally closed isolation valves serve as the pressure isolation between Residual Heat Removal system piping and reactor coolant pressure. In accordance with guidance presented in NRC Information Notice 84-74 and previous NRC concerns regarding intersystem LOCAs, cycling these valves every quarter during power operation increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure). Maintenance history on these valves has shown that excessive cycling at pressure will reduce the leak tightness of the valves. In addition, failure of these valves during testing to positively re-seat could cause loss of Residual Heat Removal system function.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this would also increase the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure).

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised tested closed and fail-safe tested closed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-16

System: Core Spray

Valves: HV252F037A and HV252F037B

Category: A

Class: 1

A. FUNCTION:

1. Valves HV252F037A and HV252F037B are the equalizing valves around the inboard Core Spray Injection check valves. They have a close safety function for containment isolation and high-pressure to low pressure-isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510) and Fail-Safe (ISTC-3560)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These normally closed isolation valves serve as the pressure isolation between Core Spray system piping and reactor coolant pressure. In accordance with guidance presented in NRC Information Notice 84-74 and previous NRC concerns regarding intersystem LOCAs, cycling these valves every quarter during power operation increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure). In addition, failure of these valves during testing to positively re-seat could cause loss of Core Spray system function.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable, since this would also increases the probability of exposing the downstream low pressure piping to reactor coolant pressure (since only one valve would have to be ruptured or stuck open to expose the low pressure system to reactor coolant pressure).

E. COLD SHUTDOWN TESTING:

1. These valves will be exercised tested closed and fail-safe tested closed during Cold Shutdowns when system configuration permits in accordance with ISTC-3521(c).

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-17

System: Main Steam

Valves: HV-241F019

Category: A

Class: 1

A. FUNCTION:

1. HV241F019 is the outboard isolation valve in the Main Steam drain line from the upstream side of Main Steam Isolation Valves HV241F022A, B, C and D to the Condenser. It is open during plant startup and shutdown when Reactor power is at 20 percent or less to remove excess moisture from the Main Steam lines, thereby preventing possible erosion and damage to the Main Turbine blading. Above 20 percent reactor power, it is maintained in the closed position.

2. HV241F019 has a safety function in the closed position to provide containment isolation and to isolate the Safey Class 1 Reactor Coolant Pressure Boundary piping from the non-safety drain piping to the Condenser. It does not have a safety function in the open position.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. This normally closed motor-operated valve is located in the Main Steam drain line and provides for draining of the Main Steam upstream of the inboard Main Steam Isolation Valves (MSIVs). It is open during plant startup until 20 percent power is achieved, at which point it is closed and remains closed during power operation. This valve is a Containment Isolation Valve (CIV) and has an active safety function to isolate primary containment when open.

2. It is impractical to exercise this valve quarterly during power operation. It is maintained in its safety-related position whenever the plant is above 20 percent power. Frequent cycling at elevated pressures and temperatures would result in increased wear on valve seating surfaces and packing, increasing the probability of leakage. Therefore, removing this valve from its safety related-position during power operation would result in a decrease in safety margin. Failure in the open or partially open position would require entry into Technical Specification LCO 3.6.1.3 and would most likely result in a plant shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-17 (Continued)

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the same reasons cited above.

E. COLD SHUTDOWN TESTING:

1. This valve will be full-stroke exercise tested and stroke time tested to the closed position during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c),(f), and (g). NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-18

System: High Pressure Coolant Injection

Valves: HV255F002

Category: A

Class: 1

A. FUNCTION:

1. HV255F002 is the High Pressure Coolant Injection turbine steam supply in-board isolation valve. This normally open motor operated valve must remain open to supply steam to the HPCI turbine. This valve must close automatically to isolate primary containment penetration X-11.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510), Stroke Time Testing (ISTC-5121)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. This normally open motor operated valve must remain open during power operation to provide a flow path for supply steam to HPCI pump turbine. It is located inside primary containment and is therefore not accessible during power operation since primary containment is inerted with nitrogen and is a locked high radiation area. If the valve failed in the closed position during exercising testing a complete loss of system function would result. Plant shutdown, to restore the valve to operable status per T.S. 3.5.1 would be required.

D. QUARTERLY PARTIAL STROKE TESTING:

1. *Quarterly partial stroke testing is not practicable for the same reasons cited above.*

E. COLD SHUTDOWN TESTING:

1. This valve will be exercised open and closed, and stroked timed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c) and ISTC-5121. NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, *Continued*

Code: 2CSJ-19

System: High Pressure Coolant Injection

Valves: HV255F100

Category: A

Class: 1

A. FUNCTION:

1. Valve HV255F100 is the High Pressure Coolant Injection turbine steam supply inboard isolation valve bypass valve. This valve has a closed safety function to isolate primary containment penetration X-11. This valve has no open safety function.

B. QUARTERLY TEST REQUIREMENTS: *Exercising (ISTC-3510), Stroke Time Testing* (ISTC-5121)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. This normally closed air operated valve is the containment isolation valve penetration X-11. It is located inside primary containment and is therefore not accessible during power operation since primary containment is inerted with nitrogen and is a locked high radiation area. If the valve failed in the open position during exercising testing a complete loss of system function would result since normally open containment isolation valve HV255F003 would have to be closed and de-energized per T.S. 3.6.1.3. *Closing of valve HV255F003 would result in a complete loss of the HPCI system* function. Plant shutdown, to restore HV255F100 to operable status per T.S. 3.5.1 would be required

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the same reasons cited above.

E. COLD SHUTDOWN TESTING:

1. This valves will be exercised open and closed and stroke time tested during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c) and ISTC-5113. NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-20

System: Reactor Core Isolation Cooling

Valves: HV249F007

Category: A

Class: 1

A. FUNCTION:

1. HV249F007 is the Reactor Core Isolation Cooling turbine steam supply inboard isolation valve. This valve must open to provide a flow path from the main steam system to the RCIC turbine. This valve must close to isolate primary containment penetration X-10.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510), Stroke Time Testing (ISTC-5121)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. This normally open motor operated valve must remain open during power operation to supply steam to the RCIC turbine. It is located inside primary containment and is therefore not accessible during power operation since primary containment is inerted with nitrogen and is a locked high radiation area. If the valve failed in the closed position during exercising testing a complete loss of system function would result. Plant shutdown, to restore the valve to operable status per T.S. 3.5.3 would be required.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the same reasons cited above.

E. COLD SHUTDOWN TESTING:

1. This valve will be exercise open and closed and stroke time tested during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c) and ISTC-5113. NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-21

System: Reactor Core Isolation Cooling

Valves: HV249F088

Category: A

Class: 1

A. FUNCTION:

1. HV249F088 is the Reactor Core Isolation Cooling turbine steam supply inboard isolation valve bypass valve. This valve has a closed safety function for primary containment isolation of penetration X-10. This valve has no open safety function.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510), Stroke Time Testing (ISTC-5121)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. This normally closed air operated valve is the containment isolation valve for penetration X-10. It is located inside primary containment and is therefore not accessible during power operation since primary containment is inerted with nitrogen and is a locked high radiation area. If the valve failed in the open position during exercising testing a complete loss of system function would result since normally open containment isolation valve HV249F008 would have to be closed and de-energized per T.S. 3.6.1.3. Closing of valve HV249F008 would result in a complete loss of the RCIC system function. Plant shutdown, to restore HV249F088 to operable status per T.S. 3.5.3 would be required

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the same reasons cited above.

E. COLD SHUTDOWN TESTING:

1. This valve will be exercised open and closed and stroke time tested during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c) and ISTC-5113. NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-22

System: High Pressure Coolant Injection

Valves: HV255F003

Category: A

Class: 1

A. FUNCTION:

1. HV255F003 is the High Pressure Coolant Injection turbine steam supply outboard isolation valve. This normally open motor operated valve must remain open to supply steam to the HPCI turbine. This valve must close automatically to isolate primary containment penetration X-11.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510), Stroke Time Testing (ISTC-5121)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. This normally open motor operated valve must remain open during power operation to provide a flow path for supply steam to HPCI pump turbine. HV255F003 is a non-redundant valve. If the valve failed in the closed position during exercising testing a complete loss of system function would result. Plant shutdown, to restore the valve to operable status per T.S. 3.5.1 would be required.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the same reasons cited above.

E. COLD SHUTDOWN TESTING:

1. This valve will be exercised open and closed, and stroked timed during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c) and ISTC-5113. NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-23

System: Reactor Core Isolation Cooling

Valves: HV249F008

Category: A

Class: 1

A. FUNCTION:

1. HV249F008 is the Reactor Core Isolation Cooling turbine steam supply out-board isolation valve. This valve must open to provide a flow path from the main steam system to the RCIC turbine. This valve must close to isolate primary containment penetration X-10.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510), Stroke Time Testing (ISTC-5121)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. This normally open motor operated valve must remain open during power operation to supply steam to the RCIC turbine. HV249F008 is a non-redundant valve. If the valve failed in the closed position during exercising testing a complete loss of system function would result. Plant shutdown, to restore the valve to operable status per T.S. 3.5.3 would be required.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the same reasons cited above.

E. COLD SHUTDOWN TESTING:

1. This valve will be exercise open and closed and stroke time tested during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c) and ISTC-5113. NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment C, COLD SHUTDOWN JUSTIFICATION, Continued

Code: 2CSJ-24

System: Reactor Recirculation

Valves: HV243F032A and HV243F032B

Category: A

Class: 1

A. FUNCTION:

1. Valves HV243F032A and HV243F032B are the Reactor Recirculation pump discharge bypass valves. These valves have a closed safety function to prevent diversion of LPCI injection flow away from the reactor vessel. These valves have no safety function in the open position.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510), Stroke Time Testing (ISTC-5121)

C. COLD SHUTDOWN TEST JUSTIFICATION:

1. These normally open motor operated valves must close to ensure all LPCI injection flow is directed through the reactor core. These valves automatically close on a LPCI initiation signal. These valves are located inside primary containment and are therefore not accessible during power operation since primary containment is inerted with nitrogen and is a locked high radiation area. If one of these inaccessible valves failed in the open position during quarterly exercising, it would render a train of the LPCI system inoperable. This would place the plant in a 7 day limiting condition of operation. Plant shutdown, to restore the valve to operable status per T.S. 3.5.1, would be required.

2. Based on the above, these valves are impractical to test on a quarterly frequency.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the same reasons cited above.

E. COLD SHUTDOWN TESTING:

1. These valves will be exercise open and closed and stroke time tested during Hot Shutdown, Cold Shutdown or Hot Standby when system configuration permits in accordance with ISTC-3521(c) and ISTC-5113. NUREG-1482, Section 3.1.1.1 discusses testing during these conditions and designating the frequency as cold shutdown.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS

Code: 2ROJ-01

System: Containment Instrument Gas

Valves: 226018 and 226029

Category: C

Class: 2

A. FUNCTION:

1. These valves provide actuating gas to the Automatic Depressurization System (ADS) feature of the Main Steam Relief Valves (MSRV) from the non-safety related containment instrument gas system. They have a safety function to close to provide a boundary when the ADS feature is supplied by the safety-related gas bottles.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. It is not practical to verify the closure function of these valves on a quarterly or cold shutdown basis. Closure of the valves for testing interrupts instrument gas supply to the ADS solenoids of the Main Steam Safety Relief Valves, compromising their ability to provide the opening motive force for the ADS valves, in support of the long-term ECCS function. Due to the configuration of the Containment Instrument Gas system, depressurization and venting of sufficient piping to permit closure exercise testing further interrupts instrument gas supply to several important valves inside containment such as the Main Steam Safety Relief Valves (non-ADS relief function) and the Main Steam Isolation Valves. This could compromise the ability of the Safety Relief Valves to operate in the relief mode, which, while not an ECCS function, is important to safety. Loss of instrument gas supply could also cause the MSIVs to close, resulting in a severe transient or in an undesirable ESF actuation. Loss of instrument gas supply could also cause isolation of the drywell cooling lines, resulting in a drywell temperature excursion.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practical for the reasons cited above.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-01 (Continued)

E. COLD SHUTDOWN TESTING:

1. Testing of these valves at cold shutdown in not practical because it requires isolation of a line feeding twenty-five air operated primary containment isolation valves. Isolation of this line at any time other than a refueling outage created the danger of unplanned actuations of Engineered Safety Features. Additionally, four of these twenty-five air operated containment isolation valves isolate drywell cooling lines.

2. Unplanned isolation of drywell cooling during cold shutdown could cause a containment temperature transient that could exceed the design maximum temperature of the drywell. Only during refueling outages are provisions made for temporary additional cooling of the drywell.

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested each refueling outage in accordance with ISTC-3522(c).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-02

System: Containment Instrument Gas

Valves: 226072, 226074, and 226164

This ROJ is no longer needed.

It was replaced by 2CMP-CIG-2 - Instrument Gas Supply to Containment Isolation Check Valves CM Plan, and 2CMP-CIG-3 - Instrument Gas Supply to Containment Isolation Check Valves CM Plan.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-03

System: Containment Instrument Gas

Valves: 226152 and 226154

This ROJ is no longer needed.

It was replaced by 2CMP-CIG-1 - Instrument Gas Supply to ADS Containment Isolation Check Valves CM Plan.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-04

System: Nuclear Boiler – Main Steam Isolation Valves

Valves: 241F024A, 241F024B, 241F024C, 241F024D, 241F029A, 241F029B, 241F029C, and 241F029D

Category: C

Class: 3

A. FUNCTION:

1. These valves are located in the Main Steam Isolation Valve (MSIV) accumulator inlet air lines and provide Containment Instrument Gas and Instrument Air System gas flow into their respective MSIV accumulators. They have a safety function to close to prevent reverse flow out of the MSIV accumulators.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. It is not practical to verify the opening or closure function of these valves on a quarterly or cold shutdown basis. Valves 241F024A through 24D are located in the drywell and thus cannot be stroked closed during normal power operations or cold shutdowns when the drywell is inerted. Valves 241F029A through 29D are located in the Wing Slab, which is inaccessible during power operations. Exercise testing of these check valves would require or cause closure of the MSIVs, which is impractical except during Refueling Outages.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing for check valves is not required by ISTC-3522(c).

E. COLD SHUTDOWN TESTING:

1. Cold shutdown testing is not practical due to the significant system configuration changes, test equipment required and for the reasons cited above.

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested open and closed each refueling outage in accordance with ISTC-3522(c).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-05

System: Nuclear Boiler – Main Steam Relief Valves

Valves: 241F036A, 241F036B, 241F036C, 241F036D, 241F036E, 241F036F, 241F036G, 241F036H, 241F036J, 241F036K, 241F036L, 241F036M, 241F036N, 241F036P, 241F036R, and 241F036S

Category: C

Class: 3

A. FUNCTION:

1. These valves are located in the non-Automatic Depressurization System (ADS) Main Steam Relief Valve (MSRV) accumulator inlet air lines and provide Containment Instrument Gas flow into their respective non-ADS MSRV accumulators. They have a safety function to close to prevent reverse flow out of the non-ADS MSRV accumulators.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. It is not practical to verify the opening or closure function of these valves on a quarterly or cold shutdown basis. These valves are located in the drywell and thus cannot be stroked closed during normal power operations or cold shutdowns when the drywell is inerted. Exercise testing of these check valves can only be performed safely and reliably during refueling outages.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing for check valves is not required by ISTC-3522(c).

E. COLD SHUTDOWN TESTING:

1. Cold shutdown testing is not practical due to the significant system configuration changes, test equipment required and for the reasons cited above.

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested open and closed each refueling outage in accordance with ISTC-3522(c).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-06

System: Nuclear Boiler – Main Steam Relief Valves

Valves: 241F040G, 241F040J, 241F040K, 241F040L, 241F040M, and 241F040N

Category: C

Class: 2

A. FUNCTION:

1. These valves are located in the Automatic Depressurization System (ADS) Main Steam Relief Valve (MSRV) accumulator inlet air lines and provide Containment Instrument Gas flow into their respective ADS MSRV accumulators. They have a safety function to open to charge the ADS accumulators and to close to prevent reverse flow out of the ADS MSRV accumulators.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. It is not practical to verify the opening or closure function of these valves on a quarterly or cold shutdown basis. These valves are located in the drywell and thus cannot be stroked during normal power operations or cold shutdowns when the drywell is inerted. Exercise testing of these check valves can only be performed safely and reliably during refueling outages.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing for check valves is not required by ISTC-3522(c).

E. COLD SHUTDOWN TESTING:

1. Cold shutdown testing is not practical due to the significant system configuration changes, test equipment required and for the reasons cited above.

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested open and closed each refueling outage in accordance with ISTC-3522(c).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-07

System: Main Steam

Valves: HV241F016

Category: A

Class: 1

A. FUNCTION:

1. HV241F016 is the outboard isolation valve in the Main Steam drain line from the upstream side of Main Steam Isolation Valves HV241F022A, B, C and D to the Condenser. It is open during plant startup and shutdown when Reactor power is at 20 percent or less to remove excess moisture from the Main Steam lines, thereby preventing possible erosion and damage to the Main Turbine blading. Above 20 percent reactor power, it is maintained in the closed position. HV241F016 has a safety function in the closed position to provide containment isolation and to provide a backup to HV241F019 to isolate the Safety Class 1 Reactor Coolant Pressure Boundary piping from the non-safety drain piping to the Condenser. It does not have a safety function in the open position.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. This normally closed motor-operated valve is located in the Main Steam drain line and provides for draining of the Main Steam upstream of the inboard Main Steam Isolation Valves (MSIVs). It is open during plant startup until 20 percent power is achieved, at which point it is closed and remains closed during power operation. This valve is a Containment Isolation Valve (CIV) and has an active safety function to isolate primary containment when open.

2. It is impractical to exercise this valve quarterly during power operation. It is maintained in its safety-related position whenever the plant is above 20 percent power. Frequent cycling at elevated pressures and temperatures would result in increased wear on valve seating surfaces and packing, increasing the probability of leakage. Therefore, removing this valve from its safety related-position during power operation would result in a decrease in safety margin. Failure in the open or partially open position would require entry into Technical Specification LCO 3.6.1.3 and would most likely result in a plant shutdown.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practicable for the same reasons cited above.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-07 (Continued)

E. COLD SHUTDOWN TESTING:

1. Since this valve is located inside the drywell, it is also impractical to exercise this valve in cold shutdowns. The repair of a failed valve would require entry into the drywell, which is inerted during power operations and most cold shutdowns.

F. REFUELING OUTAGE TESTING:

1. This valve will be exercise tested closed each refueling outage in accordance with ISTC-3521(e).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-08

System: Nuclear Boiler

Valves: 241F010A, 241F010B, 241818A, and 241818B

Category: A/C

Class: 1

A. FUNCTION:

1. These valves are the inboard and outboard containment isolation valves in the Feedwater lines. They have a safety function to open to provide a flow path for High Pressure Coolant Injection and Reactor Core Isolation Cooling to the core and to close for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. These valves are normally fully open during power operation. It is not practical to verify the closure function of these valves on a quarterly or cold shutdown basis. The Feedwater system is required to maintain reactor water level and interruption of Feedwater to perform testing would result in a reactor scram.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial close stroke testing is not practical for the reasons cited above.

E. COLD SHUTDOWN TESTING:

1. Cold shutdown close stroke testing is not practical for the reasons cited above.

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested closed each refueling outage in accordance with ISTC-3522(c).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-09

System: Nuclear Boiler

Valves: 241F039A and 241F039B

This ROJ is no longer needed.

It was replaced by 2CMP-RWCU-1 - Reactor Water Cleanup Return Check Valves CM Plan.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-10

System: Nuclear Boiler

Valves: HV241F032A and HV241F032B

Category: A/C

Class: 1

A. FUNCTION:

1. These valves are motor-operated stop check valves that function as the second outboard containment isolation valves in the Feedwater lines. They have a safety function to close to prevent diversion of High Pressure Coolant Injection and Reactor Core Isolation Cooling to the core and for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. These valves are normally fully open during power operation. It is not practical to verify the check valve closure function of these valves on a quarterly or cold shutdown basis. The Feedwater system is required to maintain reactor water level and interruption of Feedwater to perform testing would result in a reactor scram. The motor operated closure function of these valves is verified on a cold shutdown basis (Refer to Cold Shutdown Justification 14).

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial close stroke testing is not practical for the reasons cited above.

E. COLD SHUTDOWN TESTING:

1. Cold shutdown close stroke testing is not practical due to significant system configuration changes, test equipment required and for the reasons cited above.

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested closed each refueling outage in accordance with ISTC-3522(c).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-11

System: Nuclear Boiler

Valves: HV24182A and HV24182B

Category: A

Class: 2

A. FUNCTION:

1. These valves are the inboard containment isolation valves in the Reactor Water Cleanup (RWCU) return to the Feedwater lines. They have a safety function to close for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. These valves are normally open for RWCU to return flow to the reactor vessel. It is not practical to verify the closure function of these valves on a quarterly or cold shutdown basis. The RWCU system is required to maintain reactor water level and a high degree of water purity. The RWCU System would need to be shutdown to stroke test these valves. Shutdown of the RWCU system induces chemistry transients in the reactor water and should be minimized to maintain reactor water chemistry within the limits specified in Technical Requirement for Operation (TRO) 3.4.1. Failure to maintain reactor water chemistry with the TRO 3.4.1 limits could lead to a reduction in power or a forced shutdown. Additionally, shutdown of the RWCU system can lead to hydraulic transients and crud bursts that will result in increases in radiation levels and higher dose. Failure of these valves in the closed position would result in a complete loss of the RWCU system. Refueling outages have sufficient duration to allow the RWCU system to adequately cleanup the primary coolant prior to being shutdown for testing. The refueling outage schedules include periods in which RWCU must be shutdown while maintenance is performed on its support systems. If a tested RWCU valve does fail in the closed position during a refueling outage, adequate time is available to correct the condition without impacting availability and without adverse ALARA effects.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial close stroke testing is not practical for the reasons cited above.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-11 (Continued)

E. COLD SHUTDOWN TESTING:

1. Cold shutdown close stroke testing is not practical since it is more critical during a forced shutdown to have RWCU in-service to mitigate the effects of a chemistry transient as a result of the shutdown. Failure of these valves in the closed position during a cold shutdown outage would result in loss of the RWCU system and could inhibit the ability to recover from the chemistry transient. This could lead to a delay in the plant startup, which impacts unit availability. Shutdown to the RWCU system in a forced outage will also inhibit the ability to cleanup the reactor vessel and result in an increase in radiation levels and personnel dose.

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested closed each refueling outage in accordance with ISTC-3521(e).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-12

System: Reactor Recirculation

Valves: 243F013A, 243F013B, XV243F017A, and XV243F017B

This ROJ is no longer needed.

It was replaced by 2CMP-RR-1 - Reactor Recirculation Pump Seal Supply Isolation Check Valves CM Plan, and 2CMP-RR-2 - Reactor Recirculation Pump Seal Injection Check Valves CM Plan.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-13

System: Reactor Water Cleanup

Valves: HV244F001 and HV244F004

Category: A

Class: 1

A. FUNCTION:

1. These valves are the inboard and outboard containment isolation valves in the Reactor Water Cleanup (RWCU) supply line from the Reactor Recirculation system. They have a safety function to close for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. These valves are normally open for RWCU to supply flow from the reactor vessel. It is not practical to verify the closure function of these valves on a quarterly or cold shutdown basis. The RWCU system is required to maintain reactor water level and a high degree of water purity. The RWCU System would need to be shutdown to stroke test these valves. Shutdown of the RWCU system induces chemistry transients in the reactor water and should be minimized to maintain reactor water chemistry within the limits specified in Technical Requirement for Operation (TRO) 3.4.1. Failure to maintain reactor water chemistry with the TRO 3.4.1 limits could lead to a reduction in power or a forced shutdown. Additionally, shutdown of the RWCU system can lead to hydraulic transients and crud bursts that will result in increases in radiation levels and higher dose. Failure of these valves in the closed position would result in a complete loss of the RWCU system. Additionally, HV244F001 is located inside the drywell and is inaccessible during power operation due to high radiation levels and the inerted atmosphere. Refueling outages have sufficient duration to allow the RWCU system to adequately cleanup the primary coolant prior to being shutdown for testing. The refueling outage schedules include periods in which RWCU must be shutdown while maintenance is performed on its support systems. If a tested RWCU valve does fail in the closed position during a refueling outage, adequate time is available to correct the condition without impacting availability and without adverse ALARA effects.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial close stroke testing is not practical for the reasons cited above.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-13 (Continued)

E. COLD SHUTDOWN TESTING:

1. Cold shutdown close stroke testing is not practical since it is more critical during a forced shutdown to have RWCU in-service to mitigate the effects of a chemistry transient as a result of the shutdown. Failure of these valves in the closed position during a cold shutdown outage would result in loss of the RWCU system and could inhibit the ability to recover from the chemistry transient. This could lead to a delay in the plant startup, which impacts unit availability. Shutdown to the RWCU system in a forced outage will also inhibit the ability to cleanup the reactor vessel and result in an increase in radiation levels and personnel dose. It is also impractical to de-inert for repair of HV244F001 if it fails during cold shutdown testing

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested closed each refueling outage in accordance with ISTC-3521(e).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-14

System: Standby Liquid Control

Valves: HV248F006

Category: A/C

Class: 1

A. FUNCTION:

1. This valve is the outboard containment isolation valves in the Standby Liquid Control (SLC) injection lines. It has a safety function to open to provide a flow path for SLC injection to the reactor vessel and to close for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. Exercising this valve open during power operation would require injecting water into the reactor vessel. Injection of demineralized water would create a reactivity excursion and potential for reactor trip. Injection of borated water would require removing the SLC system from service to clean the borated solution from the piping. Either method would require replacing the explosive actuated valve. Closure testing of the motor-operated stop check valve HV248F006 presents the danger of having the disc stick in the closed position, blocking the only SLC injection flow path

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing involves the same consequences as full stroke testing.

E. COLD SHUTDOWN TESTING:

1. Performing a demineralized water injection during cold shutdown would be excessively burdensome, requiring significant system configuration changes and test equipment setup.

F. REFUELING OUTAGE TESTING:

1. This valve will be exercise tested open and closed each refueling outage in accordance with ISTC-3522(c). In addition, HV248F006 closure testing with the motor operator will be performed each refueling outage in accordance with ISTC-3521(e).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-15

System	Valve	Category	Class
Reactor Core Isolation Cooling	249015	C	2
Residual Heat Removal	251F089A	C	2
Residual Heat Removal	251F089B	C	2
Residual Heat Removal	251F090A	C	2
Residual Heat Removal	251F090B	C	2
High Pressure Coolant Injection	255012	C	2
Emergency Service Water	211165A	C	3
Emergency Service Water	211165B	C	3

A. FUNCTION:

1. The Reactor Core Isolation Cooling (RCIC), Residual Heat Removal (RHR), and High Pressure Coolant Injection (HPCI) check valves provide Condensate Transfer System water for keep fill purposes to Emergency Core Cooling Systems (ECCS). The Emergency Service Water (ESW) check valves provide Service Water for keep fill purposes to the Emergency Switchgear Room Chiller system. All these check valves have a close safety function to prevent loss of ECCS or ESW inventory.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. Verification that a system is full is an acceptable means for verifying that the keep fill check valves are capable of opening to provide flow when necessary (NUREG-1482, Rev. 1, Section 4.1.3.4). It is not practical to verify the closure function of these valves on a quarterly or cold shutdown basis. Testing is performed by isolating the keep fill system and draining the keep fill piping behind the check valve. Using process system pressure against the keep fill check valve, a test connection is opened to verify restricted flow. If conducted during normal plant operation, this creates an increase in the potential for water hammer, increase in potential for spills and spread of contaminated fluids, and an increase in personnel radiation exposure.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing for check valves is not required by ISTC-3522(c).

E. COLD SHUTDOWN TESTING:

1. Cold shutdown testing is not practical due to the significant system configuration changes, test equipment required and for the reasons cited above.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-15 (Continued)

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested closed each refueling outage in accordance with ISTC-3522(c).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-16

System: Reactor Building Chilled Water

Valves: HV28781A1, HV28781A2, HV28781B1, HV28781B2, HV28782A1, HV28782A2, HV28782B1, HV28782B2, HV28791A1, HV28791A2, HV28791B1, HV28791B2, HV28792A1, HV28792A2, HV28792B1, and HV28792B2

Category: A

Class: 2

A. FUNCTION:

1. Valves HV28781A1 and HV28782B1 are the outboard and inboard containment isolation valves for Drywell Cooler Loop A supply. Valves HV28781A2 and HV28782B2 are the outboard and inboard containment isolation valves for Drywell Cooler Loop A return. Valves HV28781B1 and HV28782A1 are the outboard and inboard containment isolation valves for Drywell Cooler Loop B supply. Valves HV28781B2 and HV28782A2 are the outboard and inboard containment isolation valves for Drywell Cooler Loop B return.

2. Valves HV28791A1 and HV28792B1 are the outboard and inboard containment isolation valves for Reactor Recirculation Pump A motor cooler supply. Valves HV28791A2 and HV28792B2 are the outboard and inboard containment isolation valves for Reactor Recirculation Pump A motor cooler return. Valves HV18791B1 and HV18792A1 are the outboard and inboard containment isolation valves for Reactor Recirculation Pump B motor cooler supply. Valves HV28791B2 and HV28792A2 are the outboard and inboard containment isolation valves for Reactor Recirculation Pump B motor cooler return.

B. QUARTERLY TEST REQUIREMENTS: Exercising (ISTC-3510) and Fail-Safe (ISTC-3560)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. It is not practical to verify the closure function or fail-safe function of these valves on a quarterly or cold shutdown basis. Exercise testing of these valves during power operation will interrupt cooling water flow to the Reactor Recirculation Pump motor coolers and Drywell coolers. Interruption of flow to the Reactor Recirculation Pump motor coolers creates the possibility of overheating and damage. Failure of one of the drywell cooler valves in the closed position could lead to an increase in drywell temperature above the Technical Specification limit and result in power reduction or plant shutdown.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-16 (Continued)

2. Testing during a refueling outage is practical because the Reactor Recirculation pumps are not in service in Mode 5 and one loop of Drywell Cooling can be taken out of service when the temporary drywell cooling system is used during Modes 4 and 5.

D. QUARTERLY PARTIAL STROKE TESTING

1. Quarterly partial stroke testing is not practical for the reasons cited above.

E. COLD SHUTDOWN TESTING:

1. Cold shutdown testing is not practical for the reasons cited above.

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested closed and fail-safe tested closed each refueling outage in accordance with ISTC-3521(e).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-17

System: Nuclear Boiler

Valves: HV241F022A, B, C, D and HV241F028A, B, C, D

Category: A

Class: 1

A. FUNCTION:

1. HV241F022A, B, C, D are the Main Steam Line A, B, C, D Inboard Isolation Valves, respectively. HV241F028A, B, C, D are Main Steam Line A, B, C, D Outboard Isolation Valves, respectively. These valves have a closed safety function for containment isolation.

B. QUARTERLY TEST REQUIREMENTS: Fail-Safe (ISTC-3560)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. It is not practical to verify the fail-safe function of these valves on a quarterly or cold shutdown basis. Fail-safe testing during normal power operation would cause an interruption in steam flow that would induce a reactor pressure transient with increased probability of reactor scram, main steam line isolation, and Main Steam Safety Relief Valve actuation. The fail-safe test will be conducted by a "springs-only" test of the inboard and outboard MSIVs with local observation at the valve. The inboard MSIVs are located inside the drywell and are not accessible during power operations. The drywell is normally inerted with nitrogen and often remains inerted during cold shutdown. In accordance with NUREG-1482 Section 3.1.1.3, valves may be tested during refueling outages if they would otherwise be tested during cold shutdown outages that require the containment to be de-inerted for performance of testing. The outboard MSIVs are located in the Wing Slab area of the Reactor Building. This is a high radiation area during normal power operations and during cold shutdowns.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not applicable for fail-safe testing.

E. COLD SHUTDOWN TESTING:

1. Cold shutdown testing is not practical for the reasons cited above.

F. REFUELING OUTAGE TESTING:

1. These valves will be fail-safe tested closed each refueling outage in accordance with ISTC-3560.

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-18

System: Control Rod Drive Hydraulic

Valves: 246027 and 246028

Category: A/C

Class: 3

A. FUNCTION:

1. These valves are the Seismic Island check valves in the Control Rod Drive Hydraulic System. They have a safety function to close to provide a water seal in the CRD piping, which precludes Secondary Containment Bypass Leakage from occurring via the CRD supply line penetrating secondary containment.

B. QUARTERLY TEST REQUIREMENTS: **EXERCISING** (ISTC-3510)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. These valves are open when Control Rod Drive pumps are providing water to the Control Rod Drive Mechanisms. It is not practical to verify the closure function of these valves on a quarterly or cold shutdown basis. Closure of the valves for testing takes the Control Rod Drive System out of service.

D. QUARTERLY PARTIAL STROKE TESTING:

1. Quarterly partial stroke testing is not practical for the reasons cited above.

E. COLD SHUTDOWN TESTING:

1. Cold Shutdown testing is not practical due to significant system configuration changes, test equipment required and the reasons cited above.

F. REFUELING OUTAGE TESTING:

1. These valves will be exercise tested closed each refueling outage in accordance with ISTC-3522(c).

Attachment D, REFUELING OUTAGE JUSTIFICATIONS, Continued

Code: 2ROJ-19 **(Formally ROJ-22)**

System: Residual Heat Removal

Valves: **251130**

Category: A/C

Class: 1

A. FUNCTION:

1. This valve provides a safety function to provide reactor coolant pressure boundary isolation in the closed direction.

B. QUARTERLY TEST REQUIREMENTS-:EXERCISING (ISTC-3510) and Fail-Safe (ISTC-3560)

C. REFUELING OUTAGE TEST JUSTIFICATION:

1. There is no practical way to test this check valve to satisfy the IST Partial Open Requirement or Closed Requirement, while the plant is in operation. This valve is located inside the Primary Containment (Drywell) and the valves that would need realigned to perform a verification to satisfy these requirements are also located inside the Primary Containment (Drywell). During Cold Shutdown the Primary Containment may or may not be de-inerted for entry to perform alignment of valves for testing.

D. QUARTERLY PARTIAL STROKE TESTING AND CLOSED VERIFICATIONS:

1. Quarterly partial stroke open testing and closed verification is not practical for the reasons cited above.

E. COLD SHUTDOWN TESTING:

1. Cold shutdown testing is not practical due for the reasons cited above.

F. REFUELING OUTAGE TESTING:

1. This valve will be exercise tested partial stroke open testing and closed verification, each refueling outage in accordance with ISTC-3521(c).

Attachment E, RELIEF REQUESTS

2RR01 Relief in accordance with 10 CFR 50.55a (a)(3)(i) Alternative Provides Acceptable Level of Quality and Safety

A. ASME CODE COMPONENT(S) AFFECTED

Valve	System	Cat	Class		Valve	System	Cat	Class
XV241F009	Nuclear Boiler	C	1		XV241F073C	Nuclear Boiler	C	1
XV241F070A	Nuclear Boiler	C	1		XV242F059S	Nuclear Boiler	C	1
XV241F070B	Nuclear Boiler	C	1		XV242F059T	Nuclear Boiler	C	1
XV241F070C	Nuclear Boiler	C	1		XV242F059U	Nuclear Boiler	C	1
XV241F070D	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F071A	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F071B	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F071C	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F071D	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F072A	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F072B	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F072C	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F072D	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F073A	Nuclear Boiler	C	1			Nuclear Boiler	C	1
XV241F073B	Nuclear Boiler	C	1			Nuclear Boiler	C	1

Attachment E, RELIEF REQUESTS, Continued

Valve	System	Cat	Class	Valve	System	Cat	Class
XV242F051D	Nuclear Boiler	C	1	XV242F059R	Nuclear Boiler	C	1
XV242F053A	Nuclear Boiler	C	1	XV242F059S	Nuclear Boiler	C	1
XV242F053B	Nuclear Boiler	C	1	XV242F059T	Nuclear Boiler	C	1
XV242F053C	Nuclear Boiler	C	1	XV242F059U	Nuclear Boiler	C	1
XV242F053D	Nuclear Boiler	C	1	XV242F061	Nuclear Boiler	C	1
XV242F055	Nuclear Boiler	C	1	XV243F003A	Reactor Recirculation	C	1
XV242F057	Nuclear Boiler	C	1	XV243F003B	Reactor Recirculation	C	1
XV242F059A	Nuclear Boiler	C	1	XV243F004A	Reactor Recirculation	C	1
XV242F059B	Nuclear Boiler	C	1	XV243F004B	Reactor Recirculation	C	1
XV242F059C	Nuclear Boiler	C	1	XV243F009A	Reactor Recirculation	C	1
XV242F059D	Nuclear Boiler	C	1	XV243F009B	Reactor Recirculation	C	1
XV242F059E	Nuclear Boiler	C	1	XV243F009C	Reactor Recirculation	C	1
XV242F059F	Nuclear Boiler	C	1	XV243F009D	Reactor Recirculation	C	1
XV242F059G	Nuclear Boiler	C	1	XV243F010A	Reactor Recirculation	C	1
XV242F059H	Nuclear Boiler	C	1	XV243F010B	Reactor Recirculation	C	1
XV242F059L	Nuclear Boiler	C	1	XV243F010C	Reactor Recirculation	C	1

Attachment E, RELIEF REQUESTS, Continued

Valve	System	Cat	Class	Valve	System	Cat	Class
XV242F059M	Nuclear Boiler	C	1	XV243F010D	Reactor Recirculation	C	1
XV242F059N	Nuclear Boiler	C	1	XV243F011A	Reactor Recirculation	C	1
XV242F059P	Nuclear Boiler	C	1	XV243F011B	Reactor Recirculation	C	1
XV243F011C	Reactor Recirculation	C	1	XV249F044A	Reactor Core Isolation Cooling	C	1
XV243F011D	Reactor Recirculation	C	1	XV249F044B	Reactor Core Isolation Cooling	C	1
XV243F012A	Reactor Recirculation	C	1	XV249F044C	Reactor Core Isolation Cooling	C	1
XV243F012B	Reactor Recirculation	C	1	XV249F044D	Reactor Core Isolation Cooling	C	1
XV243F012C	Reactor Recirculation	C	1	XV255F024A	High Pressure Coolant Injection	C	1
XV243F012D	Reactor Recirculation	C	1	XV255F024B	High Pressure Coolant Injection	C	1
XV243F040A	Reactor Recirculation	C	1	XV255F024C	High Pressure Coolant Injection	C	1
XV243F040B	Reactor Recirculation	C	1	XV255F024D	High Pressure Coolant Injection	C	1
XV243F040C	Reactor Recirculation	C	1	XV25109A	Residual Heat Removal	C	1
XV243F040D	Reactor Recirculation	C	1	XV25109B	Residual Heat Removal	C	1
XV243F057A	Reactor Recirculation	C	1	XV25109C	Residual Heat Removal	C	1
XV243F057B	Reactor Recirculation	C	1	XV25109D	Residual Heat Removal	C	1

Attachment E, RELIEF REQUESTS, Continued

Valve	System	Cat	Class	Valve	System	Cat	Class
XV242F059M	Nuclear Boiler	C	1	XV243F010D	Reactor Recirculation	C	1
XV242F059N	Nuclear Boiler	C	1	XV243F011A	Reactor Recirculation	C	1
XV242F059P	Nuclear Boiler	C	1	XV243F011B	Reactor Recirculation	C	1
XV243F011C	Reactor Recirculation	C	1	XV249F044A	Reactor Core Isolation Cooling	C	1
XV243F011D	Reactor Recirculation	C	1	XV249F044B	Reactor Core Isolation Cooling	C	1
XV243F012A	Reactor Recirculation	C	1	XV249F044C	Reactor Core Isolation Cooling	C	1
XV243F012B	Reactor Recirculation	C	1	XV249F044D	Reactor Core Isolation Cooling	C	1
XV243F012C	Reactor Recirculation	C	1	XV255F024A	High Pressure Coolant Injection	C	1
XV243F012D	Reactor Recirculation	C	1	XV255F024B	High Pressure Coolant Injection	C	1
XV243F040A	Reactor Recirculation	C	1	XV255F024C	High Pressure Coolant Injection	C	1
XV243F040B	Reactor Recirculation	C	1	XV255F024D	High Pressure Coolant Injection	C	1
XV243F040C	Reactor Recirculation	C	1	XV25109A	Residual Heat Removal	C	1
XV243F040D	Reactor Recirculation	C	1	XV25109B	Residual Heat Removal	C	1
XV243F057A	Reactor Recirculation	C	1	XV25109C	Residual Heat Removal	C	1
XV243F057B	Reactor Recirculation	C	1	XV25109D	Residual Heat Removal	C	1

Attachment E, RELIEF REQUESTS, Continued

Valve	System	Cat	Class		Valve	System	Cat	Class
XV24411C	Reactor Water Cleanup	C	1		XV244F046	Reactor Water Cleanup	C	1
XV24411D	Reactor Water Cleanup	C	1					
XV24411A	Reactor Water Cleanup	C	1		XV252F018A	Core Spray	C	1
XV24411B	Reactor Water Cleanup	C	1		XV252F018B	Core Spray	C	1

1. These valves are instrumentation line excess flow check valves (EFCVs) provided in each instrument line process line that penetrates primary containment in accordance with Regulatory Guide 1.11. The EFCVs are designed to close upon rupture of the instrument line downstream of the EFCV and otherwise remain open. The lines are sized and/or orificed such that off-site dose will be substantially below 10 CFR 100 limits in the event of a rupture.

B. APPLICABLE CODE EDITION AND ADDENDA

1. ASME OM Code 2004 Edition through 2006 Addenda

C. APPLICABLE CODE REQUIREMENT

1. ISTC-3522(c), "Category C Check Valves"

   a. "If exercising is not practicable during operation at power and cold shutdown, it shall be performed during refueling outages."

2. ISTC- 3700, "Position Verification Testing"

   a. "Valves with remote position indicators shall be observed locally at least once every 2 years to verify that valve operation is accurately indicated."

Attachment E, RELIEF REQUESTS, Continued

D. BASIS FOR RELIEF

1. Pursuant to 10CFR 50.55a, "Codes and Standards," paragraph (a)(3), relief is requested from the requirements of ASME OM Code ISTC-3522(c) and ISTC- 3700. The basis of the relief request is that the proposed alternative would provide an acceptable level of quality and safety.

2. Testing the subject valves quarterly or during cold shutdown is not practicable, based on plant conditions. These valves have been successfully tested throughout the life of the Susquehanna Steam Electric Station Unit 2 and they have shown no degradation or other signs of aging.

3. The technology for testing these valves is simple and has been demonstrated effectively during the operating history of Susquehanna Steam Electric Station Unit 2. The basis for this alternative is that testing a sample of EFCVs each refueling outage provides a level of safety and quality equivalent to that of the Code-required testing.

4. Excess flow check valves are required to be tested in accordance with ISTC- 3522, which requires exercising check valves nominally every three months to the positions required to perform their safety functions. ISTC-3522(c) permits deferral of this requirement to every reactor refueling outage. Excess flow check valves are also required to be tested in accordance with ISTC-3700, which requires remote position verification at least once every 2 years.

5. The EFCVs are classified as ASME Code Category C and are also containment isolation valves. However, these valves are excluded from 10 CFR 50 Appendix J Type C leak rate testing, due to the size of the instrument lines and upstream orificing. Therefore, they have no safety-related seat leakage criterion.

6. The excess flow check valve is a simple device. The major components are a poppet and spring. The spring holds the poppet open under static conditions. The valve will close upon sufficient differential pressure across the poppet. Functional testing of the valve is accomplished by venting the instrument side of the valve. The resultant increase in flow imposes a differential pressure across the poppet, which compresses the spring and decreases flow through the valve.

7. Functional testing is required by Technical Specification Surveillance Requirement 3.6.1.3.9. System design does not include test taps upstream of the EFCV. For this reason, the EFCVs cannot be isolated and tested using a pressure source other than reactor pressure.

Attachment E, RELIEF REQUESTS, Continued

8. The testing described above requires removal of the associated instrument or instruments from service. Since these instruments are in use during plant operation, removal of any of these instruments from service may cause a spurious signal, which could result in a plant trip or an unnecessary challenge to safety systems. Additionally, process liquid will be contaminated to some degree, requiring special measures to collect flow from the vented instrument side and also will contribute to an increase in personnel radiation exposure.

9. Industry experience as documented in NEDO-32977-A, indicates the ECFVs have a very low failure rate. At Susquehanna, the failure rate has been approximately 1%. Only half of these failures have resulted in replacement of the EFCV. The Susquehanna test history shows no evidence of common mode failure. This Susquehanna test experience is consistent with the findings of NEDO. The NEDO indicates similarly that many reported test failures at other plants were related to test methodologies and not actual EFCV failures. Thus, the ECFVs at Susquehanna, consistent with the industry, have exhibited a high degree of reliability, availability, and provide an acceptable level of quality and safety.

10. Testing on a cold shutdown frequency is impractical considering the large number of valves to be tested and the condition that reactor pressure greater than 500 psig is needed for testing. In this instance, considering the number of valves to be tested and the conditions required for testing, it is also a hardship to test all these valves during refueling outages. Recent improvements in refueling outage schedules minimized the time that is planned for refueling and testing activities during the outages.

11. The appropriate time for performing excess flow check valve test is during refueling outages in conjunction with vessel hydrostatic testing. As a result of shortened outages, decay heat levels during hydrostatic tests are higher than in the past. If the hydrostatic test were extended to test all EFCVs, the vessel could require depressurization several times to avoid exceeding the maximum bulk coolant temperature limit. This is an evolution that challenges the reactor operators and thermally cycles the reactor vessel. This evolution should be avoided if possible. Also, based on past experience, excess flow check valve testing during hydrostatic testing becomes the outage critical path and could possibly extend the outage by two days if all EFCVs were to be tested during this time frame.

Attachment E, RELIEF REQUESTS, Continued

E. PROPOSED ALTERNATE TESTING

1. As an alternative to testing all EFCVs during the refueling outage, a sampling plan will be implemented. This plan will test certain excess flow check valves immediately preceding the refueling outage while the reactor is at power, while also instituting the appropriate conditions for testing (reactor press > 500 psig). This alternative provides an acceptable level of quality and safety. Performance of this excess flow check valve testing prior to the outage will be scheduled such that, in the event of a failure, the resulting action statement and limiting condition of operation will encompass the planned shutdown for the refueling outage. Using this strategy, unplanned, unnecessary plant shutdowns as a result of excess flow cheek valve testing will be avoided.

2. Functional testing with verification that flow is checked will be performed per Technical Specification 3.6.1.3.9, either immediately preceding a planned refueling outage or during the refueling outage for certain EFCVs. For those valves tested prior to the refueling outage, appropriate administrative and scheduling controls will be established.

3. Surveillance Requirement 3.6.1.3.9 allows a "representative sample" of EFCVs to be tested every 24 months, such that each EFCV will be tested at least once every ten years (nominal).

4. The EFCVs have position indication in the control room. Check valve remote position indication is excluded from Regulatory Guide 1.97 as a required parameter for evaluating containment isolation. The remote position indication will be verified in the closed direction at the same frequency as the exercise test, which will be performed at the frequency prescribed in Technical Specification

5. Surveillance Requirement 3.6.1.3.9. After the close position test, the valve will be reset, and the remote open position indication will be verified. Although inadvertent actuation of an EFCV during operation is highly unlikely due to the spring poppet design, Susquehanna verifies the EFCVs indicate open in the control room at a frequency greater than once every two years.

6. In summary, considering the extremely low failure rate along with personnel and plant safety concerns to perform testing, the alternative sampling plan proposed provides an acceptable level of quality and safety.

Attachment E, RELIEF REQUESTS, Continued

F. DURATION OF RELIEF REQUEST

1. This proposed alternative is requested for the duration of the Fourth Ten-Year Interval Susquehanna Steam Electric Station Unit 2 IST program (June 1, 2014 through May 31, 2024). This is similar to the relief request approved for the Third Ten-Year Interval Susquehanna Steam Electric Station Unit 2 IST Program (Accession No. ML050690239).

G. PRECEDENT

1. NRC Safety Evaluation for Fermi 2, Relief Request VRR-011 Relating to the Third 10-Year Interval Inservice Testing Program, Docket No. 50-341 (TAC NO. ME 2558, ME 2557 AND ME 2556).

Attachment E, RELIEF REQUESTS, Continued

RELIEF REQUEST 2RR02
Relief in accordance with 10 CFR 50.55a (a)(3)(i)
Alternative Provides Acceptable Level of Quality and Safety

A. ASME CODE COMPONENT(S) AFFECTED

Valve	System	Category	Class	App J
HV251F008	RHR SHUTDOWN COOLING SUCTION OB ISO VLV	A	1	Yes
HV251F009	RHR SHUTDOWN CLG SUCT IB ISO VLV	A	1	Yes
HV251F015A/B	RHR LOOP A/B INJECTION OB ISO VLVs	A	1	Yes
HV251F022	RHR HEAD SPRAY IB SHUTOFF	A	1	Yes
HV251F023	RHR REACTOR HEAD SPRAY FLOW CONTROL VLV	A	2	Yes
HV251F050A/B	RHR LP A&B TESTABLE CHECK VALVES	A/C	1	No
HV251F122A/B	RHR/LPCI INJECTION TESTABLE CHECK BYPASS VALVES	A	1	No
HV252F005A/B	CORE SPRAY LOOP A IB INJECTION SHUTOFF VLV	A	1	Yes
HV252F006A/B	CORE SPRAY LOOP A/B TESTABLE CKV	A/C	1	Yes
HV252F037A/B	CORE SPRAY LOOP A/B TESTABLE CKV BYPASS AOV	A	1	Yes

These valves are the Category A and A/C Pressure isolation Valves (PIVs) for Residual Heat Removal System (RHR), Low Pressure Coolant Injection (LPCI), Core Spray and Reactor Head Spray for Susquehanna Steam Electric Station (SSES) Unit 2. They provide isolation and prevent over pressurization of the low pressure piping between the Emergency Core Cooling System (ECCS) and Reactor Coolant System (RCS) boundaries.

Attachment E, RELIEF REQUESTS, Continued

B. APPLICABLE CODE EDITION AND ADDENDA

1. ASME OM Code 2004 including 2006 addenda

C. APPLICABLE CODE REQUIREMENT

1. This request applies to the pressure isolation valve (PIV) leak test frequency referenced in the following requirements:

2. ISTC- 3630 Leakage Rate for Other Than Containment Isolation Valves, states that 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 are within acceptable limits. Valve closure before seat leakage testing shall be by using the valve operator with no additional closing force applied.

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

D. BASIS FOR RELIEF

1. Pursuant to 10 CFR 50.55a, "Codes and Standards," paragraph (a)(3)(i), relief is requested from the requirement of ASME OM Code ISTC-3630(a). The basis of the relief request is that the proposed alternative would provide an acceptable level of quality and safety.

2. ISTC-3630 requires that leakage rate testing for PIVs be performed at least once every 2 years. PIVs are not specifically included in the scope for performance- based testing as provided for in 10 CFR Part 50, Appendix J, Option B While the motor operated PIVs and check valve HV252F006A/B affected by this request are CIVs and tested in accordance with the 10 CFR 50 Appendix J Program. Check valve PIVs, HV251F050A/B and HV251F122A/B are not within the Appendix J scope.

3. The concept behind the Option B Alternative for containment isolation valves is that licensees should be allowed to adopt cost effective methods for complying with regulatory requirements. Additionally, NEI 94-01, "Industry Guideline for Implementing Performance-Based Option of 10 CFR Part 50, Appendix J," describes the risk-informed basis for the extended test intervals under Option B. That justification shows that for valves which have demonstrated good performance by passing their associated leak rates tests for two consecutive cycles, further failures appear to be governed by the random failure rate of the component. NEI 94-01 also presents the results of a comprehensive risk analysis, including the statement that "the risk impact associated with increasing [leak rate] test intervals is negligible (less than 0.1% of total risk)." The valves identified in this relief request are all water applications. The PIV testing is performed with water pressurized to to normal plant operating pressures in accordance with ISTC-3630.

Attachment E, RELIEF REQUESTS, Continued

4. This relief request is intended to provide for a performance-based scheduling of PIV tests at SSES. The reason for requesting this relief is dose reduction / ALARA. Recent historical data was used to identify that PIV testing alone each refuel outage incurs total dose of approximately 500 miliRem. Assuming all of the PIVs remain classified as good performers the extended test intervals would provide for a savings of approximately 1.0 Rem over the 4-year period.

5. NUREG 0933, "Resolution of Generic Safety Issues," Issue 105 (Interfacing Systems LOCA at LWRs) discussed the need for PIV leak rate testing based primarily on three pre-1980 historical failures of applicable valves industry-wide. These failures all involved human errors in either operations or maintenance. None of these failures involved inservice equipment degradation. The performance of PIV leak rate testing provides assurance of acceptable seat leakage with the valve in a closed condition. Typical PIV testing does not identify functional problems, which may inhibit the valves ability to re-position from open to closed. For check valves, such functional testing is accomplished per ASME OM Code ISTC-3520 and ISTC-3522. Power-operated valves are routinely full stroke tested per ASME OM Code to ensure their functional capabilities. At SSES, these functional tests for motor operated PIVs are performed on a cold shutdown frequency. The functional testing of the PIV check valves is performed in accordance with ISTC-5221 "Valve Obturator Movement". Performance of separate 2 year PIV leak rate testing does not contribute any additional assurance of functional capability; it only determines the seat tightness of the closed valves.

6. PIV testing is performed with water pressurized to normal plant operating pressures in accordance with ISTC-3630. The intent of this relief request is to allow for a performance-based approach to the scheduling of PIV leakage testing. It has been shown that Interfacing Systems LOCA (ISLOCA) represents a small risk impact to BWRs such as SSES.

7. NUREG/CR-5928, "Final Report of the NRC-sponsored ISLOCA Research Program" (ADAMS Accession No. ML072430731) evaluated the likelihood and potential severity of ISLOCA events in Boiling Water Reactors (BWR) and Pressurized Water Reactors (PWR). The BWR design used as a reference for this analysis was a BWR-4 with Mark I containment. SSES is listed as a similar plant. The BWR systems were individually analyzed and in each case the report concluded that the system was "judged to not be an important consideration with respect to ISLOCA risk." Section 4.3 of the report concluded the BWR portion of the analysis by saying "ISLOCA is not a risk concern for the BWR plant examined here."

8. The functional tests for PIVs are performed only at a cold shutdown frequency. Such testing is not performed online in order to prevent any possibility of an inadvertent Interfacing System Loss of Coolant Accident (ISLOCA) condition. The functional testing of the PIVs is adequate to identify any abnormal condition that might affect closure capability.

Attachment E, RELIEF REQUESTS, Continued

E. PROPOSED ALTERNATIVE TESTING

1. SSES proposes to perform PIV testing at intervals ranging from every refuel to every third refuel. The specific interval for each valve would be a function of its performance and would be established in a manner consistent with the Containment Isolation valve (CIV) process under 10CFR50 Appendix J, Option B, program guidance. The test frequency will be established such that if any of the valves, subject to a CIV and a PIV test, fail either test, the test interval for both tests will be reduced to once every 24 months until they can be re-classified as good performers per the performance evaluation requirements of Appendix J, Option B. The test intervals for the valves with a PIV-only function will be determined in a similar manner as is done for CIV testing under Option B. The test interval may be extended upon completion of two consecutive periodic PIV tests with results within prescribed acceptance criteria. Any PIV test failure will require a return to the initial interval until good performance can again be established.

F. DURATION OF RELIEF REQUEST

1. This proposed alternative is requested for the duration of the Fourth Ten-Year Interval Susquehanna Steam Electric Station Unit 2 IST program (June 1, 2014 through May 31, 2024). This is similar to relief request VRR-07 approved for James A FitzPatrick fourth 10-year IST interval, which commenced on October 1, 2007.

G. PRECEDENTS

1. This relief request was approved for Fermi Power Station for the Third 120 month Interval. Letter from R. Pascarelli (US NRC) to J. Davis (Detroit Edison), "Fermi- 2 Evaluation of In-Service Testing Program Relief Requests VRR-011, VRR-012, and VRR-013," dated September 28, 2010.

Attachment E, RELIEF REQUESTS, Continued

RELIEF REQUEST 2RR03
Use of Code Case OMN-17, Revision 0, on the Class 1 Main Steam Relief Valves
Relief in accordance with 10 CFR 50.55a (a)(3)(i)
Alternative Provides Acceptable Level of Quality and Safety

A. ASME CODE COMPONENT(S) AFFECTED

Valve	System	Category	Class
PSV241F013A	Nuclear Boiler	C	1
PSV241F013B	Nuclear Boiler	C	1
PSV241F013C	Nuclear Boiler	C	1
PSV241F013D	Nuclear Boiler	C	1
PSV241F013E	Nuclear Boiler	C	1
PSV241F013F	Nuclear Boiler	C	1
PSV241F013G	Nuclear Boiler	C	1
PSV241F013H	Nuclear Boiler	C	1
PSV241F013J	Nuclear Boiler	C	1
PSV241F013K	Nuclear Boiler	C	1
PSV241F013L	Nuclear Boiler	C	1
PSV241F013M	Nuclear Boiler	C	1
PSV241F013N	Nuclear Boiler	C	1
PSV241F013P	Nuclear Boiler	C	1
PSV241F013R	Nuclear Boiler	C	1
PSV241F013S	Nuclear Boiler	C	1

These valves are Main Steam Safety/Relief Valves. They provide overpressure protection for the reactor coolant pressure boundary to prevent unacceptable radioactive release and exposure to plant personnel.

Attachment E, RELIEF REQUESTS, Continued

B. APPLICABLE CODE EDITION AND ADDENDA

- ASME OM Code 2004 Edition through 2006 Addenda
- I-1320(a), "Test Frequencies, Class 1 Pressure Relief Valves

C. APPLICABLE CODE REQUIREMENTS

1. In ASME OM Code Mandatory Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants," Section I- 1320(a), "Class 1 pressure relief valves shall be tested at least once every 5 years, starting with initial electric power generation.

2. The licensee proposes to extend the test interval for these valves from 5 years to 6 years (with a 6-month grace period) while still maintaining the required 24- month/20% sampling requirement.

D. BASIS FOR RELIEF

1. In accordance with 10 CFR 50.55a(a)(3)(i), the licensee's relief request seeks approval of an alternative to the 5-Year Test Interval requirements of ASME OM Code, Appendix I, Section I-1320(a), for the Susquehanna Main Steam Safety/Relief Valves (MSRVs) for Unit 2. Susquehanna requests that the test interval be increased from 5 years to 72 months in accordance with ASME OM Code Case, OMN-17, "Alternative Rules for Testing ASME Class 1 Pressure Relief / Safety Valves," so that the test interval for any individual valve that is in service shall not exceed 72 months except that a 6-month grace period is allowed to coincide with refueling outages to accommodate extended shutdown periods. The basis of the relief request is that the proposed alternative would provide an acceptable level of quality and safety.

2. Without Code relief for 24-month fuel cycles, strict Code compliance would restrict Susquehanna's operating philosophy to not operate with weeping MSRVs as Code testing would be required to be completed within 5 years. This testing strategy does not account for any leaking valves that may need to be refurbished. Since Susquehanna's philosophy is to share spare valves between both units, (the valves that are removed from one unit are installed in the other unit's next refueling outage), this testing strategy is less than adequate. This strategy could only be accomplished if a large population of MSRVs are tested each outage or additional spare valves are purchased. More than 8 valves would need to be sent to the offsite testing facility during a refueling outage. The testing and return of these valves would have to be completed expeditiously in order to not impact the refuel outage schedule duration. For this reason, additional expenditures would be incurred to purchase and test a greater number of valves each outage. Without Code relief, the additional outage work would be contrary to the principles of ALARA and could compromise radiation safety.

Attachment E, RELIEF REQUESTS, Continued

Because of the location of certain MSRVs in the containment, interferences exist that would require the removal of more valves and piping for those valves that must be removed for the sample testing. This results in more radiation exposure to the maintenance personnel than is desirable.

3. With Code relief, the 16 MSRVs per unit can be tested within 6 years to complete the Code required testing for the total population and accommodate any weeping MSRVs. The increased testing over only 2 refuel cycles would result in no additional safety benefit to the plant. Susquehanna has had excellent performance with MSRVs over the last 10 years. Since 1987, Susquehanna has imposed a more conservative as-left leakage criterion on the testing facility than was specified in the General Electric Specification and incorporated in the PPL Specification for testing Crosby style relief valves. The criterion imposed on the test lab is 0 ml/5 minutes (via the purchase order) compared to a GE Specification "as-left" leakage criterion of 38 ml/5 minutes.

4. Additionally, a review of the set point testing results (for both units) from initial operation to the present shows that the average of the set point drifts percentages is approximately -0.91%. This indicates that, in general, the MSRVs Set Pressure tends to drift slightly downward, not upward. The calculated standard deviation from the average for the data was determined to be approximately 1.68%.

5. Also, the testing history shows that since commercial operation, Susquehanna has had only two "as-found" set pressure test acceptance criteria failures (above +3%) of the tested valves, which required additional MSRVs to be tested.

E. PROPOSED ALTERNATE TESTING

1. For the fourth ten-year interval, Susquehanna proposes to remove at least 20% of the 16 Main Steam Safety/Relief Valves (MSRV) plus weeping valves detected during the previous operating cycle and any valves required to be removed to access scheduled or weeping valves up to a maximum of 8 valves during each refueling outage.

2. Additional valves above the Code required minimum 20% will be tested if the as- found setpoint exceeds +3%, -5% (as approved per Technical Specification Amendment No. 257) of the nameplate. The additional valves tested will be from the initial population removed that are in excess of the 20% Code required minimum. If one of these valves fail, then all the MSRVs would be removed and tested.

3. The proposed alternative will provide for disassembly and inspection of the MSRVs to verify parts are free from defects resulting from time-related degradation or maintenance induced wear. This maintenance will also help to reduce the potential for set point drift, and increase the reliability of these Safety Relief Valves to perform their design requirement functions. Consistent with the special maintenance requirement in Code Case OMN-17, critical components will be inspected for wear and defects.

Attachment E, RELIEF REQUESTS, Continued

4. Completion of Code testing will be accomplished over a period of 3 refuel cycles or 6 years. This approach results in maintenance and operational flexibility with the following benefits:

   - Provides the ability to both test the Code required valves out of the population not yet tested and replace any weeping MSRVs.
   - Maintains relatively leak-free MSRVs, thus minimizing the necessary run time of ECCS systems that provide suppression pool cooling.
   - Consistent application of ALARA principles.
   - Enhances equipment reliability.
   - Results in minimal impact on outage durations.

5. The MSRVs will be tested such that a minimum of 20% of the valves (previously untested, if they exist) are tested every 24 months, such that all the valves will be tested within 3 refuel cycles. This proposal utilizes the same maintenance and testing approach that was applied in 18-month refuel cycles. This alternative frequency will continue to provide assurance of the valve operational readiness and provides an acceptable level of quality and safety.

6. Additionally, any failures, either seat leakage or pressure set point, occurring at the test facility, as well as weeping MSRVs that develop during the operating cycle will be documented by the corrective action program, evaluated and dispositioned accordingly.

F. DURATION OF RELIEF REQUEST

1. This proposed alternative is requested for the duration of the Fourth Ten-Year Interval Susquehanna Steam Electric Station Unit 2 IST program (June 1, 2014 through May 31, 2024). This is similar to the relief request approved for the Third Ten-Year Interval Susquehanna Steam Electric Station Unit 2 IST Program (Accession No. ML050690239).

G. PRECEDENTS

1. NRC Safety Evaluation for Beaver Valley Power Station, Unit Nos. 1 and 2, Relief Request VRR4, (TAC No. ME5752), Docket No. 50-412, February 7, 2012

2. NRC Safety Evaluation for Dresden Nuclear Power Station, Unit Nos. 2 and 3, Relief Request RV-02C, (TAC Nos. ME9865, ME9866, ME9869, ME9870, ME9871, AND ME9872), Docket Nos. 50-237 and 50-249, March 22, 2012

Attachment E, RELIEF REQUESTS, Continued

3. NRC Safety Evaluation for Oyster Creek Nuclear Generating Station, Relief Request VR-01, (TAC No. ME7617), Docket No. 50-219, February 7, 2012

4. NRC Safety Evaluation for Monticello Nuclear Generating Plant, Relief Request VR-04 Relating to the Fifth 10-Year Interval Inservice Testing Program, Docket No. 50-263. (TAC Nos. ME8067, ME8088, ME8089, ME8090, ME8091, ME8092, ME8093, ME8094, ME8095, AND ME8095), September 26, 2012

Attachment E, RELIEF REQUESTS, Continued

RELIEF REQUEST 2RR04
Relief in accordance with 10 CFR 50.55a (a)(3)(ii) Hardship or Unusual Difficulty Without Compensating Increase in Level of Quality or Safety

A. ASME CODE COMPONENTS AFFECTED

All Pumps and Valves contained within the Inservice Testing Program scope.

B. APPLICABLE CODE EDITION AND ADDENDA

ASME OM Code 2004 Edition through 2006 Addenda, and ASME OM Code Case OMN-20 from ASME OM Code 2012 Edition.

C. APPLICABLE CODE REQUIREMENT

This request applies to the frequency specifications of the ASME OM Code. The frequencies for tests given in the ASME OM Code do not include a tolerance band.

ISTA-3120(a	"The frequency for the inservice testing shall be in accordance with the requirements of Section IST."
ISTA-3400	Frequency of Inservice Tests
ISTC-3510	Exercising Test Frequency
ISTC-3540	Manual Valves
ISTC-3630(a)	Leakage Rate for Other Than Containment Isolation Valves Test Frequency
ISTC-3700	Position Verification Testing
ISTC-5221(c)(3)	"At least one valve from each group shall be disassembled and examined at each refueling outage; all valves in each group shall be disassembled and examined at least once every 8 years."
Appendix I, I-1320	Test Frequency, Class 1 Pressure Relief Devices
Appendix I, I-1330	Test Frequency, Class 1 Non-reclosing Pressure Relief Devices
Appendix I, I-1340	Test Frequency, Class 1 Pressure Relief Valves thatare used for Thermal Relief Application
Appendix I, I-1350	Test Frequency, Classes 2 and 3 Pressure ReliefValves

Attachment E, RELIEF REQUESTS, Continued

Appendix I, I-1360	Test Frequency, Classes 2 and 3 Non-reclosing Pressure Relief Devices
Appendix I, I-1370	Test Frequency, Classes 2 and 3 Primary Containment Vacuum Relief Valves
Appendix I, I-1380	Test Frequency, Classes 2 and 3 Vacuum Relief Valves, Except for Primary Containment Vacuum Relief Valves
Appendix I, I-1390	Test Frequency, Classes 2 and 3 Pressure Relief Devices That Are Used for Thermal Relief Application
Appendix II, II-4000(a)(1)	Performance Improvement Activities Interval
Appendix II, II-4000(b)(1)(e)	Optimization of Condition Monitoring Activities Interval

D. BASIS FOR RELIEF

Pursuant to 10 CFR 50.55a, "Codes and standards," paragraph (a)(3)(ii), relief is requested from the frequency specifications of the ASME OM Code. The basis of the relief request is that the Code requirement presents an undue hardship without a compensating increase in the level of quality or safety.

ASME OM Code Section IST establishes the inservice test frequency for all components within the scope of the Code. The frequencies (e.g., quarterly) have always been interpreted as "nominal" frequencies (generally as defined in the Table 3.2 of NUREG 1482, Revision 1) and Owners routinely applied the surveillance extension time period (i.e., grace period) contained in the plant Technical Specifications (TS) Surveillance Requirements (SRs). The TS typically allow for a less than or equal to 25% extension of the surveillance test interval to accommodate plant conditions that may not be suitable for conducting the surveillance (SR 3.0.2). However, regulatory issues have been raised concerning the applicability of the TS "Grace Period" to ASME OM Code required inservice test frequencies irrespective of allowances provided under TS Administrative Controls (i.e., TS 5.5.6, "Inservice Testing Program," invokes SR for various OM Code frequencies).

Attachment E, RELIEF REQUESTS, Continued

The lack of a tolerance band on the ASME OM Code inservice test frequency restricts operational flexibility. There may be a conflict where a surveillance test could be required (i.e., its Frequency could expire), but where it is not possible or not desired that it be performed until sometime after a plant condition or associated Limiting Condition for Operation (LCO) is within its applicability. Therefore, to avoid this conflict, the surveillance test should be performed when it can be and should be performed.

The NRC recognized this potential issue in the TS by allowing a frequency tolerance as described in TS SR 3.0.2. The lack of a similar tolerance applied to OM Code testing places an unusual hardship on the plant to adequately schedule work tasks without operational flexibility.

Thus, just as with TS required surveillance testing, some tolerance is needed to allow adjusting OM Code testing intervals to suit the plant conditions and other maintenance and testing activities. This assures operational flexibility when scheduling surveillance tests that minimize the conflicts between the need to complete the surveillance and plant conditions.

E. PROPOSED ALTERNATIVE TESTING

1. Susquehanna proposes to use the ASME OM Code Case OMN-20, from the 2012 Edition of the ASME OM Code, as an alternative for grace period associated with Inservice Testing Requirements.

2. ASME OM Code establishes component test frequencies that are based either on elapsed time periods (e.g., quarterly, 2 years, etc.) or on the occurrence of plant conditions or events (e.g., cold shutdown, refueling outage, upon detection of a sample failure, following maintenance, etc.).

   a. Components whose test frequencies are based on elapsed time periods shall be tested at the frequencies specified in ASME Code Section IST with a specified time period between tests as shown in the following table.

Frequency	Specified Time Period Between Tests (all values are 'not to exceed'; no minimum periods are specified)
Quarterly	92 days (or every 3 months)
Semiannually	184 days (or every 6 months)
Annually	366 days (or every year)
x Years	x calendar years where 'x' is a whole number of years ≥ 2

Attachment E, RELIEF REQUESTS, Continued

b. The specified time period between tests may be extended as follows:

(1) For periods specified as less than 2 years, the period may be extended by up to 25% for any given test. This is consistent with SSES TS Section 5.5.6, "Inservice Testing Program."

(2) Period extensions may also be applied to accelerated test frequencies (e.g., pumps in Alert Range).

(3) For periods specified as greater than or equal to 2 years, the period may be extended by up to 6 months for any given test.

c. Components whose test frequencies are based on the occurrence of plant conditions or events (e.g., cold shutdown, refueling outage, upon detection of a sample failure, following maintenance, etc.) may not have their period between tests extended except as allowed by the ASME OM Code.

F. DURATION OF RELIEF REQUEST

This proposed alternative is requested for the duration of the Fourth Ten Year Interval Susquehanna Steam Electric Station Unit 1 IST program (June 1, 2014 through May 31, 2024).

G. PRECEDENT

Generic relief has not been specifically granted to apply a tolerance band to the ASME OM Code required test frequencies. The NRC has previously accepted the application of TS SR 3.0.2 tolerance to selected OM Code frequencies as denoted in TS 5.5.6.

The prior NRC acceptance of the practice of applying TS tolerance to ASME OM Code required test frequencies provides equivalent precedence for accepting and approving this relief request.