

CHANGES TO IST MANUAL

1. 1BA-5, and 1BA-33 were changed to require a type 'C' leak rate test.
2. 1,2,3C-186, and 1,2,3C-573 were added to the IST manual.
3. CCW-99, CCW-100, CCW-101, 1CCW-103, 1CCW-104, 1CCW-105, 1CCW-106, 1CCW-108, 1CCW-247, and 1CCW-321 were added to the IST manual.
4. 1,2,3FDW-93, 1,2,3FDW-94, 1,2,3FDW-95, 1,2,3FDW-96, 1,2,3FDW-99, and 1,2,3FDW-101 were added to the IST manual.
5. 1,2,3FDW-313, 1,2,3FDW-314, 1,2,3FDW-368, 1,2,3FDW-369, 1,2,3FDW-372, 1,2,3FDW-374, 1,2,3FDW-375, 1,2,3FDW-382, 1,2,3FDW-384, and 1,2,3FDW-385 were added to the IST manual.
6. 1HP-355, and 1HP-472 were added to the IST manual.
7. 1IA-90, and 1IA-91 were changed to require a type 'C' leak rate test.
8. 1LP-46 was deleted from the program the results of an NSM.
9. 1,2LP-69 had stroke time Limit listed.
10. 1LRT-17 was added to the IST manual.
11. 1,2,3LWD-99, and 1,2,3LWD-103 were added to the IST manual.
12. 1MS-153, 1MS-154, 1MS-155, 1MS-156, 1MS-161, 1MS-162, 1MS-163, and 1MS-164 were added to the IST manual as a result of an NSM.
13. 1N-106, and 1N-107 were added to the leak rate program for type 'C' testing.
14. 1N-146 was added to the IST manual.
15. 1,2,3V-186 was added to the IST manual.
16. Exemption number for the Eight Internal Check Valves was changed to 92. Exemptions 79 through 91 were added.
17. 2CCW-110, 2CCW-111, 2CCW-112, 2CCW-113, 2CCW-114, 2CCW-115, 2CCW-116, and 2CCW-152 were added to the IST manual.
18. 2,3CF-34, 2,3CF-35, and 2,3CF-36 were added to the IST manual.
19. 3CCW-118, 3CCW-119, 3CCW-120, 3CCW-121, 3CCW-122, 3CCW-123, 3CCW-124, and 3CCW-254 were added to the IST manual.
20. 3RC-4 had stroke time Limit listed.
21. 3HP-333 was removed from the system and deleted from the IST program.

Editorial changes were made to the following list of items:

In the Valve Tables:

1,2,3BA-5, 1,2,3BA-33, 1,2,3CA-27, 1,2,3CA29, 1,2,3CF-1, 1,2,3CF-2, 1,2,3CF-3, 1,2,3CF-4, 1,2,3CF-5, 1,2,3CF-6, 1,2,3CF-7, 1,2,3CF-19, 1,2,3DW-59, 1,2,3DW-60, 1,2,3FDW-103, 1,2,3FDW-104, 1,2,3FW-64, 1,2,3FW-65, 1,2HP-155, 1,2FP-156, 1,2,3HPSW-189, 1,2,3HPSW-192, 1,2,3HPSW-248, 1,2LP-28, 1,2,3LPSW-108, 1,2,3LRT-24, 1,2,3LRT-25, 2,3LRT-36, 2,3LRT-37, 1,2,3LRT-38, 1,2,3LRT-39, 1LWD-1026, 1LWD-1027, 1LWD-1028, 2,3MS-153, 2,3MS-154, 2,3MS-155, 2,3MS-156, 2,3MS-161, 2,3MS-162, 2,3MS-163, 2,3MS-164, 1,2,3N-116, 1,2,3N-119, 1,2,3N-128, 1,2,3N-130, 1,2,3PR-20, 1,2,3SF-60, 1,2,3SF-61, 1,2,3SF-72, 1,2,3SF-73, 1,2,3SF-74, SSF-2CCW-117, 2,3IA-90, 2,3IA-91, 3LP-65, and SSF-3CCW-125.

Relief Request:

39, 43, 44, 53, 65, 66, 67, 71, 74, 75, 76, 77, and 78.

Table II:

Unit 3 designation was added to LPSW valves as required.

Table IV:

3BS-4 was changed to 3BS-6, 3CF-9 was changed to 3CF-7,
3FW-59 was changed to 3DW-59, and 3FW-60 was changed to
3DW-60 to correct errors.

OCONEE NUCLEAR STATION
INSERVICE INSPECTION PROGRAM

JULY, 1982

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1.0 INSERVICE INSPECTION PROGRAM

NOTE: TECHNICAL SPECIFICATION 4.0.4 REQUIRES PERFORMANCE OF THIS INSERVICE TESTING PROGRAM. THEREFORE, THIS DOCUMENT IS CONSIDERED TO BE A BINDING EXTENSION OF TECHNICAL SPECIFICATIONS AND ANY FAILURE TO MEET THESE REQUIREMENTS IS A VIOLATION OF TECHNICAL SPECIFICATIONS.

- 1.1 In 1975, the NRC revised 10CFR50.55(a) to require an "Inservice Inspection" of various safety-related components, including pumps and valves, to be performed in accordance with the ASME Boiler and Pressure Vessel Code, Section XI, "to the extent practical within the limitations of design, geometry and materials of construction".

Each plant was required to submit a document defining the components considered subject to the ISI program and documenting the justification for any relief or exemption. 10CFR50 also requires periodic updates of the program to include the effects of station modifications and ASME Code revisions.

This document is intended to define the components subject to the ISI program at Oconee and to indicate the various required tests. Also included are references to various documents justifying or granting reliefs, exemptions and documents explaining why some components were not considered subject to the program.

Because continuous changes are expected due to code revisions, station modifications, and procedural changes, this document will be controlled and periodically updated. Questions or suggestions for revisions should be forwarded to the Performance Test Engineer.

- 1.2 Applicable ASME Boiler and Pressure Vessel Code:

Unit 1 - 1980 Edition through Winter 1980 Addenda
Unit 2 - 1980 Edition through Winter 1980 Addenda
Unit 3 - 1980 Edition through Winter 1980 Addenda

- 1.3 Period for which program is applicable:

Unit 1 - 120 Month Period beginning April 1, 1984
Unit 2 - 120 Month Period beginning April 1, 1984
Unit 3 - 120 Month Period beginning April 1, 1984

- 1.4 Components to be examined:

Vessels, heat exchangers, pumps, valves, and piping, will be classified in accordance with 10CFR50.55a and NRC Regulatory Guide 1.26. For each ASME code class, systems have been identified which will be examined. Appropriate Duke drawings and documents provide the exact boundaries for each system to be examined.

1.5 Examination and Repairs:

Appropriate examination categories and methods are continued in Table IWB-2500, Table IWC-2500, or Subsection IWD of Section XI.

In general, volumetric examination will be performed by ultrasonic techniques. Main steam and feedwater, however, will be radiographed where possible. Surface examination will be performed by dye penetrant or magnetic particle.

Repair procedures will be prepared as necessary by the Duke Power Company Nuclear Production Department. The Quality Assurance Department will review these procedures for compliance with Section XI. Reexamination to Section XI will be included in the repair process.

2.0 PUMP TESTING PROGRAM

2.1 Inservice pump testing conducted during cold shutdown shall:

- a. Be performed so as not to impact on the timely completion of shutdown related activities and subsequent return to power operation, and
- b. Be performed during each cold shutdown when planned length is of sufficient duration to establish necessary test conditions and to perform the test.

Any testing not completed at one cold shutdown shall be performed at the next available cold shutdown consistent with the above criteria. Completion of all pump testing is not a prerequisite to return to power operation.

Definition of Time Period:

1/2 (3 Mo) is defined as 67 day maximum between tests;

3 Mo is defined as 135 day maximum between tests;

S/D is defined as the unit being at cold shutdown conditions and 90 days or more have elapsed since the last time the test was performed;

RF is defined as the unit being at an outage condition for the purpose of replacing or rearranging all or a portion of the fuel assemblies or control rods.

NOTE: The unit shall not be taken off line for the purpose of routine periodic testing.

2.2 Applicable ASME Boiler and Pressure Vessel Code:

Unit 1 - 1980 Edition through Winter 1980 Addenda

Unit 2 - 1980 Edition through Winter 1980 Addenda

Unit 3 - 1980 Edition through Winter 1980 Addenda

2.3 Period for which program is applicable:

Unit 1 - 120 Month Period beginning July 1, 1982

Unit 2 - 120 Month Period beginning July 1, 1982

Unit 3 - 120 Month Period beginning July 1, 1982

2.4 Pumps to be tested:

Pumps which are considered to be ASME Class 1, 2, or 3, when classified in accordance with NRC Regulatory Guide 1.26 and which are provided with an emergency power source will be tested. Tables of these pumps, parameters to be measured and test intervals are provided as follows:

Unit 1	Table 2-1
Unit 2	Table 2-2
Unit 3	Table 2-3

TABLE 2-1
OCONEE UNIT 1
PUMP TESTING PROGRAM

			F R E Q U E N C Y	U I N T S	I N T P R E S S U R E (1)	D I F F E R E N T I A L P R E S S U R E	F L O W	V I B R A T I O N	L U B E O I L F E V E L	B E A R I N G T E M P E R A T U R E	S H A F T S P E E D
<u>PUMPS</u>											
High Press. Injection (1A, 1B, 1C)	3 Mo (2)	AP (HS)		X	(9)	(9)	X	NA	X	NA	
Low Press. Injection (1A, 1B, 1C)	3 Mo	(3)		X	(9)	(9)	X	X	X	NA	
Reactor Building Spray (1A, 1B)	3 Mo (2)	AP (HS)		X	(9)	(9)	X	X	X	NA	
Low Press. Service Water (1A, 1B, 1C)	3 Mo	NA		X	(9)	(9)	X	X	X	NA	
Spent Fuel Pool Cooling (1A, 1B, 1C)	3 Mo	NA		X	(9)	(9)	X	X	X	NA	
Turbine Driven Emerg. Feedwater Pump	3 Mo	NA		X	(9)	(9)	X	X	X	X	
Motor Driven Emerg. Feedwater Pumps	3 Mo	NA		X	(9)	(9)	X	X	X	NA	
Concentrated Boric Acid	3 Mo	NA		(5)	(9)	(7)	X	(8)	X	NA	
Reactor Coolant Bleed Transfer Pump	3 Mo	NA		(5)	(9)	(7)	X	NA	X	NA	
SSF RC Makeup Pump	3 Mo	NA		X	(9)	(9)	X	NA	X	NA	

NOTES: AP = At Power
HS = Hot Shutdown
NA = Not Applicable
X = Parameters to be monitored
(Number) Refers to notes on attached pages

[illegible]

High Press. Injection (2A, 2B, 2C)	3 Mo (2)	AP (HS)	X	(9)	(9)	X	X	X	NA
Low Press. Injection (2A, 2B, 2C)	3 Mo	(3)	X	(9)	(9)	X	X	X	NA
Reactor Building Spray (2A, 2B)	3 Mo (2)	AP (HS)	X	(9)	(9)	X	X	X	NA
Turbine Driven Emerg. Feedwater Pump	3 Mo	NA	X	(9)	(9)	X	X	X	X
Motor Driven Emerg. Feedwater Pumps	3 Mo	NA	X	(9)	(9)	X	X	X	NA
Concentrated Boric Acid	3 Mo	NA	(5)	(9)	(7)	X	(8)	X	NA
Auxiliary Service Water	3 Mo	NA	(5)	(6)	(7)	X	X	X	NA
Reactor Coolant Bleed Transfer Pump	3 Mo	NA	(5)	(9)	(7)	X	NA	X	NA
SSF RC Makeup Pump	3 Mo	NA	X	(9)	(9)	X	NA	X	NA
SSF Auxiliary Service Water Pump	3 Mo.	NA	X	(9)	(9)	X	NA	X	NA
SSF Fuel Transfer Pump	3 Mo.	NA	X	(9)	(9)	X	NA	X	NA
SSF Diesel Engine Service Water Pump	3 Mo.	NA	X	(9)	(9)	X	NA	X	NA

NOTES: AP = At Power
 HS = Hot Shutdown
 NA = Not Applicable
 X = Parameters to be monitored
(Number) Refers to notes on attached pages

TABLE 2-3
OCONEE UNIT 3
PUMP TESTING PROGRAM

	F R E Q U E N C Y	U I N T S T A T U S	I N L E T P R E S S U R E (1)	D I F F E R E N T I A L P R E S S U R E	F L O W	V I B R A T I O N	L U B E O I L L E V E L	B E A R I N G T E M P E R A T U R E	S H A F T S P E E D
PUMPS									
High Press. Injection (3A, 3B, 3C)	3 Mo (2)	AP (HS)	X	(9)	(9)	X	X	X	NA
Low Press. Injection (3A, 3B, 3C)	3 Mo	(3)	X	(9)	(9)	X	X	X	NA
Reactor Building Spray (3A, 3B)	3 Mo (2)	AP (HS)	X	(9)	(9)	X	X	X	NA
Low Press. Service Water (3A, 3B)	3 Mo	NA	X	(9)	(9,4)	X	X	X	NA
Spent Fuel Pool Cooling (3A, 3B, 3C)	3 Mo	NA	X	(9)	(9)	X	X	X	NA
Turbine Driven Emerg. Feedwater Pump	3 Mo	NA	X	(9)	(9)	X	X	X	X
Motor Driven Emerg. Feedwater Pumps	3 Mo	NA	X	(9)	(9)	X	X	X	NA
Concentrated Boric Acid	3 Mo	NA	(5)	(9)	(7)	X	(8)	X	NA
Reactor Coolant Bleed Transfer Pump	3 Mo	NA	(5)	(9)	(7)	X	NA	X	NA
SSF RC Makeup Pump	3 Mo	NA	X	(9)	(9)	X	NA	X	NA

NOTES: AP = At Power
 HS = Hot Shutdown
 NA = Not Applicable
 X = Parameters to be monitored
(Number) Refers to notes on attached pages

PUMP TESTING PROGRAM
NOTES AND REQUESTS FOR RELIEF

1. (a) Requirement: IWP-3300 (Table IWP-3100-1), Inlet Pressure (Pi) for all pumps which are in operation on a routine basis at the time the test is started.
- (b) Reason: Several Systems are normally in operation with one or more pumps running. Taking inlet pressure prior to pump startup would require an additional swap-over to another pump. This (1) increases time required for the test, (2) causes additional wear and tear on the pumps, (3) on some systems could require additional Radiation dose during valve line up prior to swap-over and (4) presents additional opportunity for human error during swap-over which might damage system components.
- (c) Proposed Testing: Inlet pressure will be taken prior to start-up of any standby pumps. Since in most systems standby and operating pumps are alternated periodically, all pumps will be checked at one time or another. Also, on systems where the inlet piping is common, the operational pump will affect the inlet pressure of the standby pump so that operating pressure on one pump would be the same as pre-start pressure on the standby pump.
2. (a) Requirement: IWP-3300, IWP-3400; quarterly testing during normal operation (HS - Hot shutdown)
- (b) Reason: HPI and RB spray pumps cannot be operated at cold shutdown.
- (c) Proposed Testing: These pumps will be tested quarterly at power. If a test comes due during a cold shutdown, it will be tested within seven days following that cold shutdown during the (AP) approach to power.
3. (a) Requirement: IWP-3300, IWP-3400 (a) quarterly testing during normal operation for LPI Pump.
- (b) Reason: During normal plant operation, LPI pumps can be run only in recirculation mode to the BWST. The "A" pump can only be tested using a line-up which contains a 3 inch cross section of pipe. This restricts flow to a range from 1150 to 1550 gpm. At this low flow, the installed flow and differential pressure instrumentation lacks the required accuracy and, due to pump head curve characteristics, repeatability is not readily assured.
- (c) Proposed Testing: During cold shutdowns (or quarterly in the event of frequent shutdowns) the "A" pumps can be fully tested in decay heat removal mode. During normal plant operation, the pumps could be operated in recirculation mode for 15 minutes or until vibration readings are taken, whichever is longer.

4. (a) Requirement: IWP-3000 (Table IWP-3100-1) Flow Measurement for Low Pressure Service Water Pumps 3A and 3B.
(b) Reason: Two LPSW pumps supply two headers, LPA and LPB. "A" and "B" headers cannot be isolated from each other for testing. Since these headers cannot be isolated from one another with only one pump running the total flow cannot be measured through either pump.
(c) Proposed Testing: All other parameters will be tested on each pump. The ability of either pump to supply the normal requirements of both headers (which is approximately the same as ES flow) will verify the general performance of the pumps (a modification is being prepared which will allow flow to be measured).
5. (a) Requirement: IWP-3300 (Table IWP-3100-1), IWP-4230 (Table IWP-4110-1) Suction pressure measurement for Concentrated Boric Acid, and Auxiliary Service Water Pumps, and RC Bleed Transfer pump.
(b) Reason: Suction pressure instrumentation does not exist for these pumps and station modifications would be required for installation of gauges.
(c) Proposed Testing: For the Concentrated Boric Acid pump, Concentrated Boric Acid mix tank level will be used. For the Auxiliary Service Water pump, no alternate means exists, suction pressure for the RC Bleed Transfer pump will be calculated using tank level.
6. (a) Requirement: IWP-3300 (Table IWP-3100-1), IWP-4240 (Table IWP-4110-1) Differential Pressure for Auxiliary Service Water pump.
(b) Reason: No suction pressure instrumentation exists to determine the differential pressure value.
(c) Proposed Testing: None possible for this parameter.
7. (a) Requirement: IWP-3300 (Table IWP-3100-1), IWP-4600 (Table IWP-4110-1) Flow for Concentrated Boric Acid pump, Auxiliary Service Water pump and RC Bleed Transfer Pump.
(b) Reason: Flow measurement devices do not exist in these lines. A station modification would be required to install instrumentation.
(c) Proposed Testing: None possible for this parameter.
8. (a) Requirement: IWP-3300 (Table IWP-3100-1) Lube Oil Level for Concentrated Boric Acid pump.
(b) Reason: This pump is a diaphragm pump with oil being the pumping medium as well as the lubricant. No indication exists to verify lube oil level without partial disassembly of the pump.
(c) Proposed Testing: Lube oil level checked during maintenance at least semi-annually.

9. (a) Requirement: IWP-3300 (Table IWP-3100-1), Pressure Drop (ΔP) and Flow Rate (Q) for all pumps tested with adequate instrumentation.
- (b) Reason: The high limits allowed in Table IWP-3100-2 are more restrictive than the instrument calibration limits.
- (c) Range for ΔP will, at our discretion, be as follows: 0.93 to 1.07 $\Delta P(\text{Ref.})$ for acceptable range; 0.90 to 0.93 $\Delta P(\text{Ref.})$ for Low Alert, and 1.07 to 1.10 $\Delta P(\text{Ref.})$ for High Alert; $< 0.90 \Delta P(\text{Ref.})$ for Low Required Action, and $> 1.10 \Delta P(\text{Ref.})$ for High Required Action.

Range for Q will, at our discretion, be as follows: 0.94 to 1.06 Q(Ref.) for acceptable range; 0.90 to 0.94 Q(Ref.) for Low Alert, and 1.06 to 1.10 Q(Ref.) for High Alert; $< 0.90 Q(\text{Ref.})$ for Low Required Action, and $> 1.10 Q(\text{Ref.})$ for High Required Action.

3.0 VALVE TESTING PROGRAM

3.1 Inservice valve testing conducted during shutdown shall:

- a. Be performed during each cold shutdown when planned length is of sufficient duration to establish necessary test conditions and to perform the test, and
- b. Be performed so as not to impact on the timely completion of shutdown related activities and subsequent return to power operation. For outages when planned length is not of sufficient duration to complete all tests, testing will commence within 48 hours of achieving cold shutdown conditions.

Any testing not completed at one cold shutdown shall be performed at the next available cold shutdown consistent with the above criteria. Completion of all valve testing is not a prerequisite to return to power operation.

Definition of Time Period:

1/2 (3 Mo) is defined as 67 day maximum between tests;

3 Mo is defined as 135 day maximum between tests;

S/D is defined as the unit being at cold shutdown conditions and 90 days or more have elapsed since the last time the test was performed;

RF is defined as the unit being at an outage condition for the purpose of replacing or rearranging all or a portion of the fuel assemblies or control rods.

NOTE: The unit shall not be taken off line for the purpose of routine periodic testing.

3.2 Applicable ASME Boiler and Pressure Vessel Code:

Unit 1 - 1980 Edition through Winter 1980 Addenda

Unit 2 - 1980 Edition through Winter 1980 Addenda

Unit 3 - 1980 Edition through Winter 1980 Addenda

3.3 Period for which program is applicable:

Unit 1 - 120 Month period beginning July 1, 1982

Unit 2 - 120 Month period beginning July 1, 1982

Unit 3 - 120 Month period beginning July 1, 1982

3.4 Valves to be tested:

Leak Testing of Containment Isolation Valves will be conducted consistent with 10CFR50 Appendix J. Check valves used for Reactor Building Isolation will be stroke tested closed only at refueling when they are leak tested per Appendix J. Individual relief requests are included for applicable valves.

The Inservice Testing Program for Valves will be conducted consistent with the methods described in Subsection IWV of Section XI of the ASME Code (except for reliefs and exemptions indicated) and the operability requirements of the Oconee Nuclear Station Technical Specifications. Tables of Valves in Categories A, B, C, and D, their required tests and frequency of testing are provided as follows:

Unit 1	Table 3-1
Unit 2	Table 3-2
Unit 3	Table 3-3

Any valve which, due to an unusual condition (such as the failure of another component), by failing during test, either puts the plant in an unsafe condition or causes a loss of system function, will not be exercise tested until the unusual condition has been corrected.

Valves where seat movement can only be determined by flow or similar diverse means will be identified by † in the column for stroke time limit.

Valves being added to the Inservice Testing Program will not have stroke time limit shown until after their baseline stroke test. Within 60 days following each refueling outage, this document will be reviewed and updated, as appropriate, to incorporate effects of Station Modifications, etc. since the previous review.

3.5 Generic Requests for Relief

a. All Category A Valves

Test Requirement: IWV-3427 Valve Leak Rate Test, Section (b).

Bases for Relief: This paragraph is directed toward evaluating the trend of a valve's leak rate over a period of time. However, based on past test results, consistent trends in valve leak rates have not been observed, making it impossible to predict a particular valve's leak rate.

Twenty-eight valves were chosen at random for leak rate trending. Three of these tests involved valves which were six inch diameter or larger.

Of the twenty-eight, fifteen had a single test decrease from the previous test; three had two consecutive leak rates which decreased from the previous test; three had three consecutive leak rates which either remained the same or decreased from the previous test. These valves had no maintenance performed on them during this period.

Of the twenty-eight, one failed after a previous decrease to less than 0.3% of allowed leak rate limit; two failed on the second test where the first test had a leak rate of less than 1.6% of allowed leak rate; three exhibited an increase in leak rate over the previous test for each test performed and failed on the last test. In neither case had the margin been reduced by more than 36.2% on any previous test prior to failure. One failed on the second test where the first test showed a leak rate of greater than 64% of allowed leak rate limit.

In addition, performing maintenance on a valve is no guarantee the valve will have a lower leakage rate. On numerous occasions, valves had to have maintenance performed four or more times before the leak rate was measured to be significantly lower than the initial test which identified the problem. Replacing valves with new ones likewise does not guarantee an acceptable leak rate.

Alternate Testing: None proposed.

b. Fast Acting Valves

Test Requirement: IWV-3413 (b), IWV-3417

Bases for Relief: Power operated valves with stroke times of less than 2 seconds (i.e., "Fast Acting Valves") cannot show any recordable increase in stroke time without requiring corrective action, i.e. a valve stroking in 1.49 seconds (recorded as 1 sec.) could not increase to 1.51 seconds (recorded as 2 sec.) per IWV-3417(a). For such fast acting valves, errors introduced in timing contribute significantly to failure to meet acceptance criteria.

Similarly, valves with slower stroke times can be penalized due to round off of actual stroke times. Based on our experience, valves operating in five seconds or less would be subjected to unnecessary maintenance if corrective action is required following a small increase.

An increase of 3 seconds in this time range (i.e., five seconds or less) is reasonable. System functions of most of these valves do not require rapid cycle times. For valves where rapid stroke time is critical to either system function or proper operation, the maximum stroke time limit will be more restrictive and compel corrective action.

Alternate Testing: Valves with normal stroke times less than 1 second (primarily solenoid valves) will be defined as "fast acting valves" and will be considered acceptable if the measured stroke time (rounded to the nearest second) remains at 2 seconds or less. Corrective action will be required when a "fast acting valve" stroke time is 3 seconds or greater.

All other valves (primarily pneumatic valves) with normal stroke times less than 5 seconds will be considered acceptable if the increase causes the stroke time (rounded to the nearest second) to be 3 seconds greater than the previous stroke time. Corrective action will be required when the valve stroke time has increased by 4 seconds or greater, or exceeds the specified maximum stroke time.

c. **Fail-Safe Valves**

Test Requirement: IWV-3415: "When practical, valves with fail-safe actuators shall be tested by observing the operation of the valves upon loss of actuator power."

Basis for Relief: Testing by loss of actuator power is not practical. First, loss of actuator power generally involves maintenance action to interrupt power, which must subsequently be restored and verified. This greatly increases the manpower requirements for testing and increases possibility for human error in returning component to service. Second, by IWV-3200, a subsequent post-maintenance test is required to verify return to acceptable operation. Third, some components, especially pneumatic valves, have two modes of "loss of actuator power": they can lose pneumatic power by loss of instrument air or they can lose electrical power to control solenoids. Therefore, to test all modes of failure at least three tests would be required on some valves.

The net result is a significant increase in manpower and time to perform the tests, an increase in radiation exposure for valves in radiation areas, and an increase in the possibility of improper return to service.

Alternate Testing: Fail safe valves will be tested using normal controls. Where both normal controls and engineered safeguard control switches exist, the ESG switches will be used.

d. All Valves

Test Requirement: Corrective Action prior to startup. IWV-3417(b) "when corrective action is required as a result of tests made during cold shutdown, the condition shall be corrected before startup."

Basis for Relief: Existing Technical Specifications give limiting conditions for operation (LCO) including requirements for startup. If the failed component is not required to be operable in order to satisfy the appropriate LCO, there should be no additional startup penalty just due to above requirements.

Alternate Testing: None required. Components which are out of service shall not be required to be operable by IWV. Appropriate Tech. spec LCOs must be met, however.

e. Normally Closed Swing and Tilting Disc Valves:

Test Requirement: IWV-3522 (b) for Swing or Tilting Disc Valves, if the test is made by use of fluid flow through the valve, the pressure differential for equivalent flow shall be no greater than that observed during the preoperational test.

Basis for Relief: Preoperational Pressure Differential Data does not exist. Instrumentation taps to measure differential pressure would require numerous modifications, one or two pressure taps per valve. There are approximately 25 valves per unit that fall in this category. 10CRF50.55 does not require modifications of existing plants to meet code requirements.

Alternate Testing: Flow will be observed to insure seat movement without regard to valve differential pressure.

f. All Valves

Test Requirement: IWV-3412, IWV-3522 all valves which are stroke tested during cold shutdown are required to be exercised if 3 months have passed since last shutdown exercise.

Alternate Testing: When the unit is taken to cold shutdown for a short outage which will not allow for exercise testing of all valves; testing will start as soon as reasonably possible and in no case later than 48 hours after achieving cold shutdown. All valves which require special conditions during start-up will be tested. Any valve not tested due to time availability will be tested early during the next cold shutdown.

Symbols used in the following tables are defined for each heading as follows:

Under the heading TYPE:

P = Power Operated Valve
C = Check Valve
M = Manual Operated Valve
R = Relief

Under the heading CATEGORY:

A = Leak Tightness Required
B = Operability Required, Leak Tightness Not Required, or Valve Locked
Open or Shut during Power
C = Self Actuated by System Conditions

Under the heading LOCK OPEN/SHUT:

O = Valve is Locked Open during Power
S = Valve is Locked Shut during Power

Under the heading PARTIAL OR FULL STROKE:

P = Partial Stroke
F = Full Stroke

Under the heading FREQUENCY:

3 Mo. = 3 Month Test Frequency
S/D = > 3 Month @ Cold Shutdown Frequency
RF = Perform Test at each Refueling

Under the heading LEAK TEST:

J = Appendix J Required (10CFR50)
P = Pressure Boundary

Under the heading EXERCISE TEST:

P = Passive Valve, Stroke Test Not Required
M = Manual Valve, Stroke Time Not Required
F = Fast Acting
S = Engineered Safeguard

Generic Symbols

X = Are used to indicate requirement
NR = Not required

TABLE 3-1
OCONEE UNIT 1
VALVE TESTING PROGRAM

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	C A T E G O R Y	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E R E F E R E N C E	S T R O K E S	L I M I T S	I S M E C	F U L L S T R O K E	R E Q U E N C Y	C O M M E N T S
1BA-5	OFD-137A-1.2	RB Hdr. Isolation Valve	M	J	P				A										RF	39
1BA-33	OFD-137A-1.2	RB Hdr. Isolation Valve	M	J	P				A										RF	39
1BS-1	OFD-103A-1.1	"A" RBS RB Isolation Valve	P		S				B				X		37			F	3 Mo	
1BS-2	OFD-103A-1.1	"B" RBS RB Isolation Valve	P		S				B				X		37			F	3 Mo	
1BS-5	OFD-102A-1.1	"A" Suction from BWST C.V.	C					X	C									P	3 Mo	22
1BS-6	OFD-102A-1.1	"B" Suction from BWST C.V.	C					X	C									P	3 Mo	22
1BS-7	OFD-102A-1.1	"A" LPI Header to RBS	C					X	C									F	RF	57
1BS-9	OFD-102A-1.1	"B" LPI Header to RBS	C					X	C									F	RF	57
1BS-11	OFD-103A-1.1	RBS "A" Pump Disch. C.V.	C					X	C									P	3 Mo	23
1BS-14	OFD-103A-1.1	"A" Header Penetration C.V.	C					X	C									P	RF	24
1BS-16	OFD-103A-1.1	RBS "B" Pump Disch. C.V.	C					X	C									P	3 Mo	23

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	O P E N /	L O C K	P O S I T I O N	V E I F I C A T I O N	A R R E R T I F I C A T I O N	S T R O K E S	L I M I T S	P A R T I C I P A N T	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
1BS-19	OFD-103A-1.1	"B" Header Penetration C.V.	C				X	C							P	RF	24	
1C-156	OFD-121A-1.7	Emerg. FDW Pump Normal Supply	P		X			B		X			102		F	S/D	64	
1C-186	OFD-121A-1.8	Hotwell Emergency Makeup #1 Control	M		X			B							F	3 Mo		
1C-391	OFD-121A-1.8	TDEFDWP Suction from Hotwell	P		X			B		X			102		F	S/D	65	
1C-568	OFD-121A-1.8	MDEFWPs Suction From Hotwell Check	C				X	C							F	RF	76	
1C-573	OFD-121A-1.8	MDEFWPs Suction from UST	M		X			B							F	S/D	86	
1CA-27	OFD-127B-1.2	Boric Acid Supply to CFT "1A"	M	J	P			A										37
1CA-29	OFD-127B-1.2	Boric Acid Supply to CFT "1B"	M	J	P			A										37
1CA-39	OFD-110A-1.8	Caustic to LP Suction	M		M			B					NR		F	3 Mo		
1CA-62	OFD-110A-1.8	Caustic to LP Suction	M		M			B					NR		F	3 Mo		
1CC-7	OFD-144A-1.2	CC from RCP	P	J	S			A		X			45		F	S/D	40	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	V A L V E	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R I E R F E E L I N G	S T R O K E S	L I M I T S	P U L S E R A T E R O K E	F R E Q U E N C Y	C O M M E N T S
1CCW-105	OFD-121D-1.2	Aux. Service Water to "1A" SG Check	C					X	C									79
1CCW-106	OFD-121D-1.2	Aux. Service Water to "1B" SG Stop	M		X				B									85
1CCW-107	OFD-121D-1.2	Aux. Service Water SG "1B" Tell Tale	M		X				B									85
1CCW-108	OFD-121D-1.2	Aux. Service Water to "1B" SG Stop	M		X				B									85
1CCW-247	OFD-121D-1.2	Aux. Service Water Pump Recirc	M		X				B							F	3 Mo	
1CCW-321	OFD-121D-1.2	Aux. Service Water to "1B" SG Check	C					X	C									79
1CF-1	OFD-102A-1.3	"A" CFT Isolation Valve	P		P				B	0								
1CF-2	OFD-102A-1.3	"B" CFT Isolation Valve	P		P				B	0								
1CF-3	OFD-102A-1.3	"A" CFT Isolation Valve	M	J	P				A									16
1CF-4	OFD-102A-1.3	"B" CFT Isolation Valve	M	J	P				A									16
1CF-5	OFD-102A-1.3	"A" CFT Vent	P		P				B	S								

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F Y I N G	A R R E R E L I M I N A T I O N	S T R O K E S	L I M I T S	P A L L I S T R I B U T I O N	F R E Q U E N C Y	C O M M E N T S
ICS-19	OFD-107A-1.1	QT Return Penet 38 PX	M	X					A									RF	
ICS-23	OFD-107A-1.2	Comp Drn Hdr Penet 29 Drn	M	X					A									RF	
ICS-24	OFD-107A-1.2	Comp Drn Hdr Penet 29 Vent	M	X					A									RF	
ICS-25	OFD-107A-1.2	Comp Drn Hdr Penet 29 PX	M	X					A									RF	
ICS-64	OFD-106A-1.2	CBAT Outlet	P		X				B			X		10		F		3 Mo	
ICS-73	OFD-101A-1.2	CBAT to LDST	C					X	C							F		3 Mo	75
1DW-59	OFD-106E-1.1	DW to RB	M	J	P				A									RF	54
1DW-60	OFD-106E-1.1	DW to RB	M	J	P				A									RF	54
1DW-155	OFD-106E-1.1	DW to RCP Seal Vent	C	J					A/C									RF	60
1DW-156	OFD-106E-1.1	DW to RCP Seal Vent	C	J					A/C									RF	60
1DW-278	OFD-106E-1.2	DW Flush Supply to PASP	P		X				B					†		F		3 Mo	
1DW-279	OFD-106E-1.2	DW Check to Post Accident Sample Panel (PASP)	C					X	C							F		3 Mo	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E S T	S A F E T Y V A L V E S T	C H E C K V A L V E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N D	V E R I F I C A T I O N G	A R R I F I C A T I O N G	S T R O K E I S T S T I S E C	P U L L I N G O K E	F R E Q U E N C Y	C O M M E N T S
1DW-280	OFD-107B-1.4	DW Flush for RB Normal Sump Pump	P		X			B					†	F	3 Mo	
1DW-281	OFD-110A-1.4	PASP Cooling Water Supply	M		M			B					NR	F	3 Mo	
1DW-282	OFD-110A-1.4	PASP Cooling Water Supply	M		M			B					NR	F	3 Mo	
1DW-284	OFD-106E-1.1	Penet 47 Drain	M	X				A							RF	
1FDW-31	OFD-121B-1.3	"A" OTSG Main Block	P		X			B		X			226	F	S/D	71
1FDW-32	OFD-121B-1.3	"A" OTSG Main Flow Control Valve	P		X			B		X			40	F	S/D	71
1FDW-33	OFD-121B-1.3	EFDW to OTSG "A"	P		X			B		X			66	F	S/D	30
1FDW-35	OFD-121B-1.3	EFDW to OTSG "A"	P		X			B		X			25	F	S/D	30
1FDW-36	OFD-121B-1.3	EFDW to OTSG "A"	P		X			B		X			48	F	S/D	30
1FDW-38	OFD-121B-1.3	EFDW to OTSG "A"	P		X			B		X			42	F	S/D	31
1FDW-39	OFD-121D-1.1	EFDW to OTSG "A" Check Valve	C				X	C						F	RF	32
1FDW-40	OFD-121B-1.3	"B" OTSG Main Block	P		X			B		X			226	F	S/D	71
1FDW-41	OFD-121B-1.3	"B" OTSG Main Flow Control Valve	P		X			B		X			40	F	S/D	71

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E S T	S A F E T Y	C H E C K	V A L V E	V A L V E	C A T E G O R Y	L O C K	O P E N /	P O S I T I O N	V E R I F I C A T I O N	A R R I F I C A T I O N	S T R O K E S	L I M I T S	P U L S E S	F A L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
1FDW-42	OFD-121B-1.3	EFDW to OTSG "B"	P	X						B			X	60	F	S/D	30						
1FDW-44	OFD-121B-1.3	EFDW to OTSG "B"	P	X						B			X	25	F	S/D	30						
1FDW-45	OFD-121B-1.3	EFDW to OTSG "B"	P	X						B			X	48	F	S/D	30						
1FDW-47	OFD-121B-1.3	EFDW to OTSG "B"	P	X						B			X	45	F	S/D	31						
1FDW-48	OFD-121D-1.1	EFDW to OTSG "B" Check	C						X	C						F	RF	32					
1FDW-93	OFD-121D-1.1	Emerg. FDWP Disch. Line "A" Check	C						X	C						F	RF	80					
1FDW-94	OFD-121D-1.1	Emerg. FDWP Disch. Line 1A	M	M						B					NR	F	3 Mo						
1FDW-95	OFD-121D-1.1	Emerg. FDWP Disch. Check Line 1B	C						X	C						F	RF	80					
1FDW-96	OFD-121D-1.1	Emerg. FDWP Disch. Line 1B	M	M						B					NR	F	3 Mo						
1FDW-99	OFD-121D-1.1	Emerg. FDW Line "A" Check	C						X	C						F	RF	81					
1FDW-101	OFD-121D-1.1	Emerg. FDW Line "B" Check	C						X	C						F	RF	81					
1FDW-103	OFD-121B-1.5	S/G "1A" Shell Drain Block	P	J	P					A													33
1FDW-104	OFD-121B-1.5	S/G "1B" Shell Drain Block	P	J	P					A													33
1FDW-105	OFD-110A-1.1	OTSG "A" Sample	P	J	S					A			X	30	F	3 Mo							

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C E P T I O N	S A F E T Y V A L V E S T	C H E C K V A L V E S T	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A C T U E L I N G	S T R O K E S T I M E C	F U L L T R A N S M I S S I O N	R E Q U E S T Y	C O M M E N T S
1FDW-106	OFD-110A-1.1	OTSG "A" Sample	P	J	S		A		X		10	F		3 Mo	
1FDW-107	OFD-110A-1.1	OTSG "B" Sample	P	J	S		A		X		30	F		3 Mo	
1FDW-108	OFD-110A-1.1	OTSG "B" Sample	P	J	S		A		X		10	F		3 Mo	
1FDW-117	OFD-110A-1.1	"1A" OTSG Smpl Penet 2 Vent	M	X			A							RF	
1FDW-118	OFD-110A-1.1	"1A" OTSG Smpl Penet 2 Drain	M	X			A							RF	
1FDW-119	OFD-110A-1.1	"1A" OTSG Smpl Penet 2 PX	M	X			A							RF	
1FDW-122	OFD-110A-1.1	"1B" OTSG Smpl Penet 58 Vent	M	X			A							RF	
1FDW-123	OFD-110A-1.1	"1B" OTSG Smpl Penet 58 Drain	M	X			A							RF	
1FDW-124	OFD-110A-1.1	"1B" OTSG Smpl Penet 58 PX	M	X			A							RF	
1FDW-232	OFD-121D-1.1	OTSG "A" Emergency Hdr. Check	C				X	C					F	RF	32
1FDW-233	OFD-121D-1.1	OTSG "B" Emergency Hdr. Check	C				X	C					F	RF	32
1FDW-311	OFD-121D-1.1	EFDW to OTSG "A"	C				X	C					F	RF	1
1FDW-312	OFD-121D-1.1	EFDW to OTSG "B"	C				X	C					F	RF	1

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E T	S A F E T Y	C H E C K	V A L V E	C A T E G O R Y	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R I F I C A T I O N	S T R O K E S	L I M I T S	F U L L T R O C K E	P R E Q U I S I T O R Y	F R E Q U E N C Y	C O M M E N T S
1FDW-313	OFD-121D-1.1	EFWP Line "1A2" Disch. to S/G "1A" X-Tie	M		M			B				X		NR			F		3 Mo	
1FDW-314	OFD-121D-1.1	EFWP Line "1B2" Disch. to S/G "1B" X-Tie	M		M			B				X		NR			F		3 Mo	
1FDW-315	OFD-121D-1.1	EFDW to OTSG "A"	P		X			B				X		45			F		3 Mo	
1FDW-316	OFD-121D-1.1	EFDW to OTSG "B"	P		X			B				X		50			F		3 Mo	
1FDW-317	OFD-121D-1.1	EFDW to OTSG "A"	C				X	C									F		RF	1
1FDW-318	OFD-121D-1.1	EFDW to OTSG "B"	C				X	C									F		RF	1
1FDW-345	OFD-121D-1.1	"1A" SG Emergency Hdr. Check	C				X	C									F		RF	2
1FDW-346	OFD-121D-1.1	"1B" SG Emergency Hdr. Check	C				X	C									F		RF	2
1FDW-368	OFD-121D-1.1	TDEFWP Disch. to SG "1A" Block (Emerg-Emerg Hdr)	P		X			B				X					F		3 Mo	
1FDW-369	OFD-121D-1.1	TDEFWP Disch. to SG "1B" Block (Emerg-Emerg Hdr)	P		X			B				X					F		3 Mo	
1FDW-370	OFD-121D-1.1	MDEFWP "A" Min. Flow Recirc	C				X	C									F		RF	69

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V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F U E L I N G	S T R O K E S T I M E C	P U L L R I S T R O K E	F R E Q U E N C Y	C O M M E N T S		
1FDW-372	OFD-121D-1.1	MDEFWP "1A" Disch. to SG "1A" (Emerg-Emerg Hdr)	P		X			B			X			F	3 Mo			
1FDW-373	OFD-121D-1.1	MDEFW to OTSG "A"	C				X	C						F	RF	1		
1FDW-374	OFD-121D-1.1	MDEFWP "1A" Disch. to SG "1A" (Non-Emerg Hdr)	P		X			B			X			F	3 Mo			
1FDW-375	OFD-121D-1.1	MDEFWP "1A" Disch. Check to SG "1A" (Non-Emerg Hdr)	C				X	C						F	RF	82		
1FDW-380	OFD-121D-1.1	MDEFWP "B" Min. Flow Recir	C				X	C						F	RF	69		
1FDW-382	OFD-121D-1.1	MDEFWP "1B" Disch. to SG "1B" (Emerg-Emerg Hdr)	P		X			B			X			F	3 Mo			
1FDW-383	OFD-121D-1.1	MDEFW to OTSG "B"	C				X	C						F	RF	1		
1FDW-384	OFD-121D-11	MDEFWP "1B" Disch. to SG "1B" (Non-Emerg Hdr)	P		X			B			X			F	3 Mo			
1FDW-385	OFD-121D-1.1	MDEFWP "1B" Disch Check to SG "1B" (Non-Emerg Hdr)	C				X	C						F	RF	82		
1FDW-442	OFD-1210-1.1	EFDW to "B" S/G Outside Check	C				X	C						F	RF	2		

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	O P E N /	P O S I T I O N	V E R I F Y	A C T I O N	S T R O K E	L I M I T S	P A R T I C I P A N T	F U L L I S A T R O K E	F R E Q U E N C Y	C O M M E N T S
1FW-64	OFD-106E-1.1	FW to RB			M	J	P		A										RF	53
1FW-65	OFD-106E-1.1	FW to RB			M	J	P		A										RF	54
1FW-66	OFD-106E-1.1	RB FW Header Drain (46)			M	X			A										RF	
1GWD-10	OFD-107A-1.1	QT Vent Penet 18 Vent			M	X			A										RF	
1GWD-11	OFD-107A-1.1	QT Vent Penet 18 Vent			M	X			A										RF	
1GWD-12	OFD-107A-1.1	QT Vent			P	J	S		A			X		20		F			3 Mo	26
1GWD-13	OFD-107A-1.1	QT Vent			P	J	S		A			X		15		F			3 Mo	
1HP-3	OFD-101A-1.1	"A" LD Cooler Outlet			P	J	S		A			X		40		F			3 Mo	
1HP-4	OFD-101A-1.1	"B" LD Cooler Outlet			P	J	S		A			X		40		F			3 Mo	
1HP-5	OFD-101A-1.1	LD Cooler Outlet			P	J	S		A			X		4		F			S/D	8
1HP-16	OFD-101A-1.2	Makeup to LDST			P		X		B			X		5		F			3 Mo	
1HP-20	OFD-101A-1.1	RC Pump Seal Return			P	J	S		A			X		38		F			S/D	9

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V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F U E L I N G	S T R O K E S T I M E C	P A R T I C I P A N T O K E	F R E Q U E N C Y	C O M M E N T S
1HP-21	OFD-101A-1.1	RC Pump Seal Return	P	J	S			A		X		4	F	S/D	10	
1HP-24	OFD-101A-1.3	"A" HPI Pump Suct. from BWST	P		S			B		X		14	F	3 Mo		
1HP-25	OFD-101A-1.3	"C" HPI Pump Suct. from BWST	P		S			B		X		14	F	3 Mo		
1HP-26	OFD-101A-1.4	"A" Loop Injection	P		S			B		X		14	F	S/D	11	
1HP-27	OFD-101A-1.4	"B" Loop Injection	P		S			B		X		14	F	3 Mo		
1HP-36	OFD-101A-1.1	Letdown Penet 6 Vent	M	X				A						RF		
1HP-37	OFD-101A-1.1	Letdown Penet 6 Drain	M	X				A						RF		
1HP-38	OFD-101A-1.1	Letdown Penet 6 PX	M	X				A						RF		
1HP-68	OFD-101A-1.1	Seal Return Penet 7 Vent	M	X				A						RF		
1HP-69	OFD-101A-1.1	Seal Return Penet 7 Drain	M	X				A						RF		
1HP-70	OFD-101A-1.1	Seal Return Penet 7 PX	M	X				A						RF		
1HP-101	OFD-101A-1.3	"A" HPI Pump Suct. Check Valve	C				X	C					P	RF	6	
1HP-102	OFD-101A-1.3	"C" HPI Pump Suct. Check Valve	C				X	C					P	RF	6	
1HP-105	OFD-101A-1.3	"A" HPI Disch. Check Valve	C				X	C					P/F	3 Mo	7	

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V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K T E S T	E X E R C I S E T E S T	S A F E T Y V A L V E T E S T	C H E C K V A L V E T E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F U E L I N G	S T R O K E S T I M E C	L I M I T S O K E	F U L L P A R T I S A L R O K E	F R E Q U E N C Y	C O M M E N T S	
1HP-109	OFD-101A-1.3	"B" HPI Disch. Check Valve	C				X	C							P/F	3 Mo	7	
1HP-113	OFD-101A-1.3	"C" HPI Disch. Check Valve	C				X	C							P/F	3 Mo	7	
1HP-120	OFD-101A-1.4	"A" Loop Injection	P		X			B			X		25		F	S/D	51	
1HP-126	OFD-101A-1.4	"A" Loop Check Valve	C				X	C							F	S/D	12	
1HP-127	OFD-101A-1.4	"A" Loop Check Valve	C				X	C							F	S/D	12	
1HP-144	OFD-101A-1.4	Seal Supply to Pump "A2"	C	J				A/C							F	RF	61	
1HP-145	OFD-101A-1.4	Seal Supply to Pump "A1"	C	J				A/C							F	RF	61	
1HP-146	OFD-101A-1.4	Seal Supply to Pump "B2"	C	J				A/C							F	RF	61	
1HP-147	OFD-101A-1.4	Seal Supply to Pump "B1"	C	J				A/C							F	RF	61	
1HP-152	OFD-101A-1.4	"B" Loop Check Valve	C				X	C							F	RF	13	
1HP-153	OFD-101A-1.4	"B" Loop Check Valve	C				X	C							F	RF	13	
1HP-155	OFD-127B-1.2	CF Tank "A" Fill	M	J	P			A									38	
1HP-156	OFD-127B-1.2	CF Tank "B" Fill	M	J	P			A									38	
1HP-188	OFD-101A-1.4	"B" Loop Check Valve	C				X	C							F	RF	14	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K T E S T	E X E R C I S E T E S T	S A F E T Y V A L V E T E S T	C H E C K V A L V E T E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N I N G	V E R I F I C A T I O N G	A T T E N T I O N G	S T R O K E L I M I T S T I M E C	F U L L P A R T I A L O K E	F R E Q U E N C Y	C O M M E N T S
1HP-194	OFD-101A-1.4	"A" Loop Check Valve	C				X	C						F	S/D	15
1HP-202	OFD-101A-1.4	RCP Seal Supply Penet 23 Vent	M	X				A							RF	
1HP-203	OFD-101A-1.4	RCP Seal Supply Penet 23 PX	M	X				A							RF	
1HP-204	OFD-101A-1.4	RCP Seal Supply Penet 23 Drain	M	X				A							RF	
1HP-209	OFD-101A-1.4	RCP "1A" Seal Supply Penet 23 Vent	M	X				A							RF	
1HP-210	OFD-101A-1.4	RCP "1A" Seal Supply Penet 23 PX	M	X				A							RF	
1HP-211	OFD-101A-1.4	RCP "1A" Seal Supply Penet 23 Drn	M	X				A							RF	
1HP-216	OFD-101A-1.4	RCP "B2" Seal Supply Penet 10 Vent	M	X				A							RF	
1HP-217	OFD-101A-1.4	RCP "B2" Seal Supply Penet 10 PX	M	X				A							RF	
1HP-218	OFD-101A-1.4	RCP "B2" Seal Supply Penet 10 Drn	M	X				A							RF	
1HP-223	OFD-101A-1.4	RCP "B1" Seal Supply Penet 10 Vent	M	X				A							RF	
1HP-225	OFD-101A-1.4	RCP "B1" Seal Supply Penet 10 Drn	M	X				A							RF	
1HP-283	OFD-101A-1.4	Seal Supply to RCP "A1"	C	J			X	A/C						F	RF	61
1HP-284	OFD-101A-1.4	Seal Supply to RCP "A2"	C	J			X	A/C						F	RF	61

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E T	S A F E T Y V A L V E T	C H E C K V A L V E T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E I M I T S	P A R T I C I P A N T O K E R	F R E Q U E N C Y	C O M M E N T S
1HP-286	OFD-101A-1.4	Seal Supply to RCP "B2"	C	J			X	A/C						F	RF	61
1HP-355	OFD-101A-1.4	Aux. Pressurizer Spray Flow Control	P		X			B		X				F	S/D	83
1HP-393	OFD-101A-1.4	Seal Supply to RCP "B1"	C	J			X	A/C						F	RF	61
1HP-409	OFD-101A-1.4	B Loop HPI X-Connect	P		X			B		X		10		F	S/D	46
1HP-410	OFD-101A-1.4	A Loop HPI X-Connect	P		X			B		X		10		F	S/D	46
1HP-472	OFD-101A-1.4	Aux. Pressurizer Spray Isolation	M		M			B					NR	F	S/D	83
1HPSW-184	OFD-124A-1.3	LPSW to TDEFWP Oil Coolers	P		X			B		X		10		F	3 Mo	
1HPSW-189	OFD-124C-1.2	TDEFDWP Cooling Water Cont. Vlv Inlet	M		P			B	0							
1HPSW-191	OFD-124C-1.2	Emerg. FWPT Cooling Jacket	C				X	C						F	3 Mo	
1HPSW-192	OFD-124C-1.2	TDEFDWP Cooling Water Cont. Vlv Outlet	M		P			B	0							
1HPSW-193	OFD-124A-1.3	Emerg. FWPT Cooling Jacket	C				X	C						F	3 Mo	
1HPSW-248	OFD-124C-1.3	Emerg. FWPT Cooling Jacket	C		P			B	0							

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E T	S A F E T Y	C H E C K	L O C K	P O S I T I O N	V E R I F I C A T I O N	A I R F E E L I N G	S T R O K E I M S T I S M E C	F U L L T I S A T L O C K E R	F R E Q U E N C Y	C O M M E N T S
1HPSW-556	OFD-124C-1.3	HPSW Emer Cooling Press Reg Valve	C				X	C					F	S/D	77
1IA-90	PO-149U	Penetration Isolation	M	J	P		A							RF	43
1IA-91	PO-149U	Penetration Isolation	M	J	P		A							RF	43
1IA-2423	OFD-110A-1.4	PASP Air Supply	M		H		B					NR	F	3 Mo	
1LP-1	OFD-102A-1.1	DH Valve	P		X		B		X		74	F	S/D	18	
1LP-2	OFD-102A-1.1	DH RB Isolation	P		X		B		X		72	F	S/D	18	
1LP-3	OFD-102A-1.1	DH RB Isolation	P		X		B		X		85	F	3 Mo		
1LP-5	OFD-102A-1.1	LP Pump "A" Suction	P		X		B		X		130	F	3 Mo		
1LP-6	OFD-102A-1.1	LPI Suction X-Connect	P		X		B		X		120	F	3 Mo		
1LP-7	OFD-102A-1.1	LPI Suction X-Connect	P		X		B		X		120	F	3 Mo		
1LP-8	OFD-102A-1.1	LP Pump "B" Suction	P		X		B		X		130	F	3 Mo		
1LP-9	OFD-102A-1.2	LPI Disch. X-Connect	P		X		B		X		110	F	3 Mo		

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K T E S T	E X E R C I S E T E S T	S A F E T Y V A L V E T E S T	C H E C K V A L V E T E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N D	V E R I F I C A T I O N G	A T T E N T I O N G	S T R O K E I N T E R F A C E	L I M I T S	P A R T I S A L R O K E	F R E Q U E N C Y	C O M M E N T S
1LP-10	OFD-102A-1.2	LPI Disch. X-Connect	P	X			B			X		100	F		3 Mo		
1LP-11	OFD-102A-1.2	Cooler "A" Inlet	P	X			B			X		168	F		3 Mo		
1LP-12	OFD-102A-1.2	LPI "A" Cooler Outlet	P	X			B			X		125	F		3 Mo		
1LP-14	OFD-102A-1.2	LPI "B" Cooler Outlet	P	X			B			X		125	F		3 Mo		
1LP-15	OFD-102A-1.2	LPI "A" Header to HPI	P	X			B			X		70	F		3 Mo		
1LP-16	OFD-102A-1.2	LPI "B" Header to HPI	P	X			B			X		70	F		3 Mo		
1LP-17	OFD-102A-1.2	LPI "A" RB Isolation Valve	P	S			B			X		15	F		S/D	47	
1LP-18	OFD-102A-1.2	LPI "B" RB Isolation Valve	P	S			B			X		15	F		S/D	47	
1LP-19	OFD-102A-1.1	RB Emergency Sump	P	X			B			X		100	F		3 Mo		
1LP-20	OFD-102A-1.1	RB Emergency Sump	P	X			B			X		100	F		3 Mo		
1LP-21	OFD-102A-1.1	BWST to LPI Suction	P	S			B			X		15	F		3 Mo		
1LP-22	OFD-102A-1.1	BWST to LPI Suction	P	S			B			X		15	F		3 Mo		
1LP-25	OFD-102A-1.1	RC Return Header Relief Valve	C		X		C									RF	
1LP-28	OFD-102A-1.1	BWST Isolation	M	P			B	0									

V A L V E	N O.	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E R F E E L I N G	S T R O K E S	L I M I T S	P A R T I C I P A N T S	F R E Q U E N C Y	C O M M E N T S
1LP-29	OFD-102A-1.1	BWST to "A" LPI Header	C						X	C							P	3 Mo	45
1LP-30	OFD-102A-1.1	BWST to "B" LPI Header	C						X	C							P	3 Mo	45
1LP-31	OFD-102A-1.2	"A" LPI Pump Discharge	C						X	C							P/F	3 Mo	68
1LP-33	OFD-102A-1.2	"B" LPI Pump Discharge	C						X	C							F	3 Mo	
1LP-47	OFD-102A-1.2	"A" LPI Header Check Valve	C	P					X	A/C							F	S/D	19
1LP-48	OFD-102A-1.2	"B" LPI Header Check Valve	C	P					X	A/C							F	S/D	19
1LP-51	OFD-102A-1.1	Caustic to LP Suction	M		M					B					NR		F	3 Mo	
1LP-55	OFD-101A-1.3	"A" Cooler Out. to HP Pump Suction	C						X	C							P	RF	70
1LP-57	OFD-101A-1.3	"B" Cooler Out. to HP Pump Suction	C						X	C							P	RF	70
1LP-65	OFD-102A-1.1	Drain to D ₂ from Loop "B"	M		M					B					NR		F	3 Mo	
1LP-68	OFD-102A-1.1	D/H Inlet to "B" Cooler	M		M					B					NR		F	S/D	66
1LP-69	OFD-102A-1.2	Switchover Mode Control	P		X					B			X		28		F	3 Mo	
1LP-73	OFD-102A-1.2	"B" Cooler Disc. Block	M		M					B					NR		F	S/D	66

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	P O S I T I O N	V E R I F I C A T I O N	A R R I E R T E L I N G	S T R O K E S	L I M I T S	F U L L T R A T T O R E	F R E Q U E N C Y	C O M M E N T S
1LP-74	OFD-102A-1.2	"B" Cooler Disc. Block to "A" Pump	M		M			B					NR		F	S/D	66
1LP-75	OFD-102A-1.2	"B" Cooler Disc. Block to "C" Pump	M		M			B					NR		F	S/D	66
1LP-103	OFD-102A-1.1	Boron Dilution	P		X			B			X		15		F	S/D	20
1LP-104	OFD-102A-1.1	Boron Dilution	P		X			B			X		10		F	S/D	20
1LP-105	OFD-102A-1.1	Boron Dilution	P		X			B			X		14		F	S/D	21
1LP-120	OFD-102A-1.1	PASP Return Check Valve	C					X	C						F	3 Mo	
1LP-121	OFD-102A-1.1	Post Accident Sample Return	P		X			B					†		F	3 Mo	
1LPSW-4	OFD-124B-1.1	DH Cooler "1A" Outlet	P		S			B			X		100		F	3 Mo	
1LPSW-5	OFD-124B-1.1	DH Cooler "1B" Outlet	P		S			B			X		100		F	3 Mo	
1LPSW-6	OFD-124B-1.4	LPSW to RCP Oil Coolers	P		S			B			X		66		F	S/D	52
1LPSW-7	OFD-124B-1.4	LPSW to RCP "1A1" Oil Coolers	P		X			B			X		30		F	S/D	55
1LPSW-8	OFD-124B-1.4	LPSW from RCP "1A1" Oil Coolers	P		X			B			X		30		F	S/D	55
1LPSW-9	OFD-124B-1.4	LPSW to RCP "1B1" Oil Coolers	P		X			B			X		30		F	S/D	55

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S	L I M I T S	P A R T I C I P A N T S	F R E Q U E N C Y	C O M M E N T S
1LPSW-10	OFD-124B-1.4	LPSW from RCP "1B1" Oil Coolers	P	X					B			X	30	F	S/D	55			
1LPSW-11	OFD-124B-1.4	LPSW to RCP "1B2" Oil Coolers	P	X					B			X	30	F	S/D	55			
1LPSW-12	OFD-124B-1.4	LPSW from RCP "1B2" Oil Coolers	P	X					B			X	30	F	S/D	55			
1LPSW-13	OFD-124B-1.4	LPSW to RCP "1A2" Oil Coolers	P	X					B			X	30	F	S/D	55			
1LPSW-14	OFD-124B-1.4	LPSW from RCP "1A2" Oil Coolers	P	X					B			X	30	F	S/D	55			
1LPSW-15	OFD-124B-1.4	LPSW from RCP Oil Coolers	P	J	S				A			X	72	F	S/D	52			
1LPSW-16	OFD-124B-1.2	LPSW to RBCU "1A"	P	X					B			X	57	F	3 Mo				
1LPSW-18	OFD-124B-1.2	LPSW from RBCU "1A"	P	S					B			X	38	F	3 Mo				
1LPSW-19	OFD-124B-1.2	LPSW to RBCU "1B"	P	X					B			X	57	F	3 Mo				
1LPSW-21	OFD-124B-1.2	LPSW from RBCU "1B"	P	S					B			X	38	F	3 Mo				
1LPSW-22	OFD-124B-1.2	LPSW to RBCU "1C"	P	X					B			X	57	F	3 Mo				
1LPSW-24	OFD-124B-1.2	LPSW from RBCU "1C"	P	X					B			X	38	F	3 Mo				
1LPSW-75	OFD-124B-1.1	DH Cooler "1A" Outlet C.V.	C						X	C					F	3 Mo			
1LPSW-76	OFD-124B-1.1	DH Coolers "1B" Outlet C.V.	C						X	C					F	3 Mo			

V A L V E N O.	D R A W I N G N O.	VALVE NAME	S A F E T Y C H E C K L O C K O P E N / S H U T P O S I T I O N I N G V E R I F Y I N G S T R O K E S L I M I T S P A R T I C I P A N T S F U L L S T R O K E F R E Q U E N C Y C O M M E N T S															
			T Y P E	T E S T	T E S T	T E S T	T E S T	T E S T	C A T E G O R Y									
1LPSW-108	OFD-124A-1.1	RBCU Outlet	M		P			B	O									
1LPSW-137	OFD-124A-1.3	LPSW to Unit 1 TDEFDWP Cooling Jacket	P		X			B				X		NR		F		3 Mo
1LPSW-138	OFD-124A-1.3	Bypass around Vlv to Cool. Jacket	P		X			B				X		10		F		3 Mo
1LPSW-144	OFD-124B-1.4	LPSW 22 Return Penet Test Drain	M	X				A										RF
1LPSW-145	OFD-124B-1.4	LPSW 22 Return Penet Test Vent	M	X				A										RF
1LPSW-146	OFD-124B-1.4	LPSW 22 Return Penet Test GAuge	M	X				A										RF
1LPSW-251	OFD-124B-1.1	DH Cooler Outlet	P		X			B				X		52		F		3 Mo
1LPSW-252	OFD-124B-1.1	DH Cooler Outlet	P		X			B				X		52		F		3 Mo
1LPSW-516	OFD-124A-1.3	Auto Valve from "A" MDEFDWP Motor	P		X			B						†		F		3 Mo
1LPSW-525	OFD-124A-1.3	Auto Valve from "B" MDEFDWP Motor	P		X			B						†		F		3 Mo
1LPSW-561	OFD-124B-1.4	RCP "1B1/1B2" M Cool Rtn Vent (22)	M	X				A										RF
1LPSW-565	OFD-124B-1.2	RB Aux. Cooler Inlet	P		S			B				X		55		F		3 Mo
1LPSW-566	OFD-124B-1.2	RBCU Inlet	P		S			B				X		55		F		3 Mo

VALVE	DRAWING	VALVE NAME	TYPE		LEAK	CRACK	VALVE	VALVE	COPEN / SHUT	SITING	RIFLING	LOCKING	PULTRUSION	FREQUENCY	COMMENTS
			TEST	STATUS	TEST	STATUS	TEST	STATUS							
1LPSW-666	OFD-124B-1.4	RCP "1A1" M Cool Rtn Drn. (22)	M	X					A					RF	
1LPSW-667	OFD-124B-1.4	U-1 RCP Return Line Drn. (22)	M	X					A					RF	
1LPSW-687	OFD-124A-1.3	Unit 1 TDEFWP Cooling Water Supply	C					X	C				F	3 Mo	
1LRT-17	OFD-137E-1.1	Pressurization Block	P	J	P				A					RF	89
1LRT-24	OFD-137E-1.1	Leak Rate Test	M	J	P				A					RF	44
1LRT-25	OFD-137E-1.1	Leak Rate Test	M	J	P				A					RF	44
1LRT-38	OFD-137E-1.1	Leak Rate Test	M	J	P				A					RF	44
1LRT-39	OFD-137E-1.1	Leak Rate Test	M	J	P				A					RF	44
1LWD-1	OFD-107B-1.1	Normal Sump Suction	P	J	S				A		X	15	F	3 Mo	
1LWD-2	OFD-107B-1.1	Normal Sump Suction	P	J	S				A		X	15	F	3 Mo	28
1LWD-27	OFD-107B-1.1	RB Nrml Sump Penet 5 Drn	M	X					A					RF	
1LWD-28	OFD-107B-1.1	RB Nrml Sump Penet 5 Vent	M	X					A					RF	

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S	L I M I T S	F U L L S T R O K E	P A R T I A L O K E	F R E Q U E N C Y	C O M M E N T S
1LWD-29	OFD-107B-1.1	RB Nrml Sump Penet 5 PX	M	X						A								RF	
1LWD-99	OFD-107D-1.2	Emerg. Sump Drain Pene. (40) Block	M							A									90
1LWD-103	OFD-107D-1.2	Emerg. Sump Drain Pene. (40) Block	M							A									90
1LWD-1026	OFD-107B-1.2	RB Norm. Sump Sample Pump Suction	P		X					B				†		F		3 Mo	
1LWD-1027	OFD-107B-1.2	RB Norm. Sump Sample Pump Disc. Check	C						X	C						F		3 Mo	
1LWD-1028	OFD-107B-1.2	RB Norm. Sump Sample Pump Discharge	P		X					B				†		F		3 Mo	
IMS-1	OFD-122A-1.1	Main Steam Relief Valve	R				X			C						F		RF	72
IMS-2	OFD-122A-1.1	Main Steam Relief Valve	R				X			C						F		RF	72
IMS-3	OFD-122A-1.1	Main Steam Relief Valve	R				X			C						F		RF	72
IMS-4	OFD-122A-1.1	Main Steam Relief Valve	R				X			C						F		RF	72
IMS-5	OFD-122A-1.1	Main Steam Relief Valve	R				X			C						F		RF	72
IMS-6	OFD-122A-1.1	Main Steam Relief Valve	R				X			C						F		RF	72

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E S	L I M I T S	P A R T I A L O K E	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
IMS-7	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-8	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-9	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-10	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-11	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-12	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-13	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-14	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-15	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-16	OFD-122A-1.1	Main Steam Relief Valve	R					X		C							F	RF	72	
IMS-17	OFD-122A-1.2	Steam Header "A" Turbine Bypass	P		X					B		X	120				F	S/D	67	
IMS-19	OFD-122A-1.2	Turbine Bypass Control "A"	P		X					B		X	38				F	S/D	67	
IMS-22	OFD-122A-1.2	Turbine Bypass Control "B"	P		X					B		X	38				F	S/D	67	
IMS-24	OFD-122A-1.2	MS Line "A" to Aux. Steam	P		X					B		X	72				F	3 Mo		

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X H E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E I M I S T S	F U L L T R I P O K E	F R E Q U E N C Y	C O M M E N T S
IMS-26	OFD-122A-1.2	Steam Header "B" Turbine Bypass	P		X		B		X		120	F	S/D	67	
IMS-28	OFD-122A-1.2	Turbine Bypass Control "C"	P		X		B		X		38	F	S/D	67	
IMS-31	OFD-122A-1.2	Turbine Bypass Control "D"	P		X		B		X		38	F	S/D	67	
IMS-33	OFD-122A-1.2	MS Line "B" to Aux. Steam	P		X		B		X		72	F	3 Mo		
IMS-82	OFD-122A-1.4	MS Line "A" to EFDW Turbine	P		X		B		X		72	F	3 Mo		
IMS-83	OFD-122A-1.4	MS Line "A" to EFDW Pump Turbine Check	C			X	C					F	3 Mo		
IMS-84	OFD-122A-1.4	MS Line "B" to EFDW Turbine	P		X		B		X		72	F	3 Mo		
IMS-85	OFD-122A-1.4	MS Line "B" to EFDW Pump Turbine Check	C			X	C					F	3 Mo		
IMS-91	OFD-122A-1.4	MS to EFPT Supply Check	C			X	C					F	3 Mo		
IMS-93	OFD-122A-1.4	EFPT Supply Trip Valve	P		X		B		X		25	F	3 Mo		
IMS-102	OFD-122B-1.1	MS Stop Valve 4	P	X	X		A		X		1/15	P/F	3 Mo	34	
IMS-103	OFD-122B-1.1	MS Stop Valve 3	P	X	X		A		X		1/15	P/F	3 Mo	34	
IMS-104	OFD-122B-1.1	MS Stop Valve 2	P	X	X		A		X		1/15	P/F	3 Mo	34	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E I M S T S	P A R T I C I P A N T O K E	F R E Q U E N C Y	C O M M E N T S
IMS-105	OFD-122B-1.1	MS Stop Valve 1	P	X	X			A		X			1/15	P/F	3 Mo	34
IMS-153	OFD-122A-1.1	MS Line "A" Atmos Dump Blk Vlv Byp	M		M			B					NR	F	S/D	78
IMS-154	OFD-122A-1.1	MS Line "A" Atmos Dump Isol Vlv	M		M			B					NR	F	S/D	78
IMS-155	OFD-122A-1.1	MS Line "B" Atmos Dump Blk Vlv	M		M			B					NR	F	S/D	78
IMS-156	OFD-122A-1.1	MS Line "B" Atmos Dump Isol Vlv	M		M			B					NR	F	S/D	78
IMS-161	OFD-122A-1.1	MS Line "A" Atmos Dump Blk Vlv Byp	M		M			B					NR	F	S/D	78
IMS-162	OFD-122A-1.1	MS Line "A" Atmos Dump Control Vlv	M		M			B					NR	F	S/D	78
IMS-163	OFD-122A-1.1	MS Line "B" Atmos Dump Blk Vlv Byp	M		M			B					NR	F	S/D	78
IMS-164	OFD-122A-1.1	MS Line "A" Atmos Dump Control Vlv	M		M			B					NR	F	S/D	78
IN-106	OFD-127B-1.2	LP N ₂ Heater Outlet	M	J	P			A							RF	88
IN-107	OFD-127B-1.2	LP N ₂ Heater Bypass	M	J	P			A							RF	88
IN-116	OFD-127B-1.2	Quench Tank Supply	M	J	P			A								35
IN-119	OFD-127B-1.2	S/G Pressurizer Sup Blk	M	J	P			A								35

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	O P E N /	P O S I T I O N	V E R I F I C A T I O N	A C T I V E	S T R O K E	L I M I T S	F U L L	P A R T I A L	F R E Q U E N C Y	C O M M E N T S
IN-128	OFD-127B-1.2	CF Tank "A" Supply	M	J	P			A											36
IN-130	OFD-127B-1.2	CF Tank "B" Supply	M	J	P			A											36
IN-146	OFD-127B-1.2	LP N ₂ Heater Outlet Vent	M	J	P			A										RF	
1PR-1	OFD-116A-1.1	RB Purge Outlet	P	J	S			A	S		X		8		F		S/D		4
1PR-2	OFD-116A-1.1	RB Purge Outlet	P	J	S			A	S		X		5		F		S/D		4
1PR-3	OFD-116A-1.1	RB Purge Control	P		S			B	S		X		5		F		S/D		4
1PR-4	OFD-116A-1.1	RB Purge Inlet	P		S			B	S		X		5		F		S/D		4
1PR-5	OFD-116A-1.1	RB Purge Inlet	P	J	S			A	S		X		5		F		S/D		4
1PR-6	OFD-116A-1.1	RB Purge Inlet	P	J	S			A	S		X		8		F		S/D		4
1PR-7	OFD-116C-1.1	RB Radiation Monitor	P	J	S			A			X		20		F		3 Mo		29
1PR-8	OFD-116C-1.1	RB Radiation Monitor	P	J	S			A			X		5		F		3 Mo		
1PR-9	OFD-116C-1.1	RB Radiation Monitor	P	J	S			A			X		15		F		3 Mo		29
1PR-10	OFD-116C-1.1	RB Radiation Monitor	P	J	S			A			X		5		F		3 Mo		

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y V A L V E S T	C H E C K V A L V E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S T I M E C	L I M I T S I S M E C	P U L L T I S T R O K E	F R E Q U E N C Y	C O M M E N T S
1PR-15	OFD-116B-1.1	PR Fan A Discharge	P		X			B			X		85		F	3 Mo	
1PR-19	OFD-116B-1.1	PR Fan B Discharge	P		X			B			X		85		F	3 Mo	
1PR-20	OFD-116B-1.1	PR Fan Suction Tie	P		X			B					NR		F	RF	74
1PR-23	OFD-116C-1.1	RB Sample Inlet Penet 60 Test	M	X				A								RF	
1PR-24	OFD-116C-1.1	RB Sample Inlet (60)	M	X				A								RF	
1PR-25	OFD-116C-1.1	RB Hydrogen Purge Return (60)	M	X				A								RF	
1PR-27	OFD-116A-1.1	RB Purge Exhaust Penet 20 Test	M	X				A								RF	
1PR-28	OFD-116A-1.1	RB Purge Exhaust Penet 20 Test	M	X				A								RF	
1PR-29	OFD-116A-1.1	RB Purge Supply Penet 19 Test	M	X				A								RF	
1PR-30	OFD-116A-1.1	RB Purge Supply Penet 19 Test	M	X				A								RF	
1PR-59	OFD-116C-1.1	H ₂ Recombiner Inlet	P	J	X			A			X		20		F	3 Mo	29
1PR-60	OFD-116B-1.1	H ₂ Recombiner Outlet	P	J	X			A			X		20		F	3 Mo	29
1PR-68	OFD-116C-1.1	Rad Monit Inlet Drain (60)	M	X				A								RF	
1PR-71	OFD-110A-1.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F	3 Mo	56

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E S T I O N	S T R O K E S	L I M I T S	P A R T I C L E	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
1PR-72	OFD-110A-1.3	H ₂ Analyzer "A" Sample Select	P	X				B						†	F		3 Mo	56	
1PR-73	OFD-110A-1.3	H ₂ Analyzer "A" Sample Select	P	X				B						†	F		3 Mo	56	
1PR-74	OFD-110A-1.3	H ₂ Analyzer "A" Sample Select	P	X				B						†	F		3 Mo	56	
1PR-75	OFD-110A-1.3	H ₂ Analyzer "A" Sample Select	P	X				B						†	F		3 Mo	56	
1PR-76	OFD-110A-1.3	H ₂ Analyzer "B" Sample Select	P	X				B						†	F		3 Mo	56	
1PR-77	OFD-110A-1.3	H ₂ Analyzer "B" Sample Select	P	X				B						†	F		3 Mo	56	
1PR-78	OFD-110A-1.3	H ₂ Analyzer "B" Sample Select	P	X				B						†	F		3 Mo	56	
1PR-79	OFD-110A-1.3	H ₂ Analyzer "B" Sample Select	P	X				B						†	F		3 Mo	56	
1PR-80	OFD-110A-1.3	H ₂ Analyzer "B" Sample Select	P	X				B						†	F		3 Mo	56	
1PR-81	OFD-110A-1.3	H ₂ Analyzer "A" Sample Select	P	J	F			A						2	F		3 Mo		
1PR-83	OFD-110A-1.3	Chan. "A" Supply to Hydrogen Anal./PASP	P	X				B						†	F		3 Mo		
1PR-84	OFD-110A-1.3	H ₂ Analyzer "A" Return	P	J	F			A						2	F		3 Mo		
1PR-86	OFD-110A-1.3	Chan. "A" Return from Hydrogen Anal./PASP	P	X				B						†	F		3 Mo		

V A L V E N O.	D R A W I N G N O.	VALVE NAME	S A F E T Y C H E C K L O C K O P E N / S H U T P O S I T I O N V E R I F Y / C O N F I R M / I N D I C A T O R A T T E N T I O N S T R I K E / T E S T / M E C H A N I C A L / E L E C T R I C / P U L S E / F L O W / P R E S S U R E / T E M P E R A T U R E / V I S U A L / O U T L E T / I N L E T / B Y P A S S / C O N T A M I N A N T / P O U R / D R A W O F F / C L O S E / O P E N / S H U T F U L L / P A R T I A L / O K / N O K / F A U L T / C O M M E N T S										F R E Q U E N C Y	C O M M E N T S
			T Y P E	L E A K	E X C I S E	V A L V E	V A L V E	C A T E G O R Y	O P E N / S H U T	P O S I T I O N	V E R I F Y / C O N F I R M / I N D I C A T O R	S T R I K E / T E S T / M E C H A N I C A L / E L E C T R I C / P U L S E / F L O W / P R E S S U R E / T E M P E R A T U R E / V I S U A L / O U T L E T / I N L E T / B Y P A S S / C O N T A M I N A N T / P O U R / D R A W O F F / C L O S E / O P E N / S H U T		
1PR-87	OFD-110A-1.3	H ₂ Analyzer "B" Inlet	P	J	F			A				2	F	3 Mo
1PR-89	OFD-110A-1.3	Chan. "B" Supply to Hydrogen Anal./PASP	P		X			B				†	F	3 Mo
1PR-90	OFD-110A-1.3	H ₂ Analyzer "B" Return	P	J	F			A				2	F	3 Mo
1PR-92	OFD-110A-1.3	Chan. "B" Return from Hydrogen Anal./PASP	P		X			B				†	F	3 Mo
1PR-93	OFD-110A-1.3	Chan. "A/B" PASP Supply Selector	P		X			B				†	F	3 Mo
1PR-94	OFD-110A-1.3	Chan. "A/B" PASP Return Selector	P		X			B				†	F	3 Mo
PR-95	OFD-110A-1.3	Unit 1/Unit 2 PASP Supply Selector	P		X			B				†	F	3 Mo
PR-96	OFD-110A-1.3	Unit 1/Unit 2 PASP Return Selector	P		X			B				†	F	3 Mo
1RC-4	OFD-100A-1.2	Block Valve for PORV	P		X			B		X		15	F	3 Mo
1RC-5	OFD-110A-1.1	Pressure Steam Sample	P	J	S			A		X		30	F	3 Mo
1RC-6	OFD-110A-1.1	Pressure Sample	P	J	S			A		X		30	F	3 Mo
1RC-7	OFD-110A-1.1	Pressure Sample	P	J	S			A		X		10	F	3 Mo

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K T E S T	E X E R C I S E T E S T	S A F E T Y V A L V E T E S T	C H E C K V A L V E T E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E I N T E R F A C E	L I M I T S	F U L L T I M E R O K E	F R E Q U E N C Y	C O M M E N T S
1RC-49	OFD-110A-1.1	Press Sample Penet 1 Vent	M	X				A								RF	
1RC-50	OFD-110A-1.1	Press Sample Penet 1 Drain	M	X				A								RF	
1RC-51	OFD-110A-1.1	Press Sample Penet 1 PX	M	X				A								RF	
1RC-66	OFD-100A-1.2	Power Operated Relief Valve (PORV)	P		X			B					†		F	S/D	59
1RC-67	OFD-100A-1.2	Pressurizer Relief	R			X		C								RF	73
1RC-68	OFD-100A-1.2	Pressurizer Relief	R			X		C								RF	73
1RC-155	OFD-100A-1.1	Loop "A" High Point Vent	P		F			B					2		F	RF	63
1RC-156	OFD-100A-1.1	Loop "A" High Point Vent Block	P		F			B					2		F	RF	63
1RC-157	OFD-100A-1.1	Loop "B" High Point Vent	P		F			B					2		F	RF	63
1RC-158	OFD-100A-1.1	Loop "B" High Point Vent Block	P		F			B					2		F	RF	63
1RC-159	OFD-100A-1.1	Reactor Vessel Head Vent	P		F			B					2		F	RF	63
1RC-160	OFD-100A-1.1	Reactor Vessel Head Vent Block	P		F			B					2		F	RF	63
1RC-162	OFD-100A-1.1	Post Accident Sample Valve	P		F			B					2		F	3 Mo	
1RC-163	OFD-100A-1.1	Post Accident Sample Valve	P		F			B					2		F	3 Mo	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	P O S I T I O N	V E R I F I C A T I O N	A R R I E F U E L I N G	S T R O K E I S T S	F U L L T I S T R O K E	F R E Q U E N C Y	C O M M E N T S
IRC-164	OFD-100A-1.1	Post Accident Sample Valve	P	J	F		A					2	F	3 Mo	
IRC-165	OFD-100A-1.1	Post Accident Sample Valve	P	J	F		A					2	F	3 Mo	
IRC-175	OFD-100A-1.1	HP Vent PAS System (5b)	M	X			A							RF	
IRC-176	OFD-100A-1.1	Test Conn. PAS System (5b)	M	X			A							RF	
IRC-179	OFD-100A-1.1	Post Accident Sample Block "B" Loop	M		M		B					NR	F	3 Mo	
ISF-60	OFD-104A-1.1	Canal Fill Pent. Block	M	J	P		A								25
ISF-61	OFD-104A-1.1	Canal Fill Pent. Block	M	J	P		A								25
ISF-72	OFD-104A-1.1	Transfer Tube "A" Drain to Sump	M	J	P		A							RF	58
ISF-73	OFD-104A-1.1	Transfer Tube "B" Drain to Sump	M	J	P		A							RF	58
ISF-74	OFD-104A-1.1	Transfer Tube Drain Block	M	J	P		A							RF	58
SSF-1CCW-109	OFD-133A-2.5	SSF Aux. Ser. Water Outside Isol.	M		P		B	0							
SSF-1CCW-268	OFD-133A-2.5	SSF Aux Ser Wtr Dsch to S G Supply	M		M		B					NR	F	3 Mo	

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	V A L V E	C H E C K	C A T E G O R Y	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R I E N C E	S T R O K E S	L I M I T S	F U L L T R A T T O R E	P U L S E R E Q U I R E D	F R E Q U E N C Y	C O M M E N T S
SSF-1CCW-269	OFD-121D-1.1	SSF Aux. Ser. Water to "A" OTSG G	P		X					B				X		16		F		S/D	3
SSF-CCW-271	OFD-133A-2.5	HVAC Service Water Pump Disc.	C						X	C								F		3 Mo	
SSF-CCW-274	OFD-133A-2.5	HVAC Service Water Pump Disc.	C						X	C								F		3 Mo	
SSF-CCW-284	OFD-133A-2.5	Diesel Eng. Ser. Water Pump Disch.	C						X	C								F		3 Mo	
SSF-CCW-285	OFD-133A-2.5	Diesel Eng. Ser. Water Pump Disch.	M		M					B						NR		F		3 Mo	
SSF-1CCW-287	OFD-133A-2.5	SSF Aux. Ser. Water Disch.	M		M					B						NR		F		3 Mo	
SSF-1CCW-289	OFD-133A-2.5	SSF Aux. Ser. Water Disch.	C						X	C								F		3 Mo	
SSF-1FDW-347	OFD-121D-1.1	SSF Aux. Ser. Water to B OTSG	P		X					B				X		16		F		S/D	50
SSF-1HP-398	OFD-101A-1.5	RC Makeup to RCP Seals	P		X					B				X		10		F		S/D	48
SSF-1HP-399	OFD-101A-1.5	RC Makeup to RCP Seals	C						X	C								F		S/D	5
SSF-1HP-400	OFD-101A-1.5	RC Makeup to RCP Seals	C						X	C								F		S/D	5
SSF-1HP-401	OFD-101A-1.5	RC Makeup to RCP Seals	C						X	C								F		S/D	5
SSF-1HP-402	OFD-101A-1.5	RC Makeup to RCP Seals	C						X	C								F		S/D	5
SSF-1HP-405	OFD-101A-1.5	RC Makeup Recirc. Line	P	J	X					A				X		9		F		3 Mo	

V A L V E	D R A W I N G	N O.	N O.	V A L V E N A M E	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	C A T E G O R Y	L O C K	O P E N / S H U T	P O S I T I O N	V E N T I F I C A T I O N	A T T E N T I O N	S T R O K E S	L I M I T S	T I M E	F U L L T R I A L O K E	F R E Q U E N C Y	C O M M E N T S
SSF-1HP-417	OFD-101A-1.5			RC Makeup Recirc. Line	P	J	X			A				X		8			F	3 Mo	
SSF-1HP-423	OFD-101A-1.5			RC Makeup Pump Recirc Drain (12)	M	X				A										RF	
SSF-1HP-425	OFD-101A-1.5			Letdown to Spent Fuel Vent (12)	M	X				A										RF	
SSF-1HP-426	OFD-101A-1.5			RC Return from Letdown Line	P	J	X			A				X		8			F	S/D	49
SSF-1HP-428	OFD-101A-1.5			RC Return from Letdown Line	P	J	X			A				X		13			F	3 Mo	
SSF-1SF-82	OFD-101A-1.5			RC Makeup Pump Suction	P	J	X			A				X		13			F	3 Mo	
SSF-1SF-97	OFD-104A-1.1			RC Makeup Pump Suction	P	J	X			A				X		13			F	3 Mo	
SSF-1SF-98	OFD-104A-1.2			SFP to RC Makeup Pump Vent (11)	M	X				A										RF	
SSF-1SF-99	OFD-104A-1.2			SFP to RC Makeup Pump Drain (11)	M	X				A										RF	
1V-186	OFD-121C-1.1			Main Condenser Vacuum Breaker	P		X			B				X					F	RF	84
Eight Internal Check Valves (No OFD Assigned)					C				X	C									F	RF	92

TABLE 3-2
OCONEE UNIT 2
VALVE TESTING PROGRAM

(Unit 2)

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	V A L V E	C H E C K	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R I F I C A T I O N	S T R I K E S T I M E	F U L L P A R T I A L O K E	F R E Q U E N C Y	C O M M E N T S
2BA-5	OFD-137A-2.2	RB Hdr. Isolation Valve	M	J	P				A								39
2BA-33	OFD-137A-2.2	RB Hdr. Isolation Valve	M	J	P				A								39
2BS-1	OFD-103A-2.1	"A" RBS RB Isolation Valve	P		S				B		X		37	F		3 Mo	
2BS-2	OFD-103A-2.1	"B" RBS RB Isolation Valve	P		S				B		X		37	F		3 Mo	
2BS-5	OFD-102A-2.1	"A" Suction from BWST C.V.	C				X	C						P		3 Mo	22
2BS-6	OFD-102A-2.1	"B" Suction from BWST C.V.	C				X	C						P		3 Mo	22
2BS-7	OFD-102A-2.1	"A" LPI Header to RBS	C				X	C						F		RF	57
2BS-9	OFD-102A-2.1	"B" LPI Header to RBS	C				X	C						F		RF	57
2BS-11	OFD-103A-2.1	RBS "A" Pump Disch. C.V.	C				X	C						P		3 Mo	23
2BS-14	OFD-103A-2.1	"A" Header Penetration C.V.	C				X	C						P		RF	24
2BS-16	OFD-103A-2.1	RBS "B" Pump Disch. C.V.	C				X	C						P		3 Mo	23
2BS-19	OFD-103A-2.1	"B" Header Penetration C.V.	C				X	C						P		RF	24

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	P O S I T I O N	V E R I F I C A T I O N	A R R E F U E L I N G	S T R O K E S	F U L L T I M E O K E	F R E Q U E N C Y	C O M M E N T S
2C-156	OFD-121A-2.7	Emerg. FDW Pump Normal Supply	P	X					B		X		102	F	S/D	64	
2C-186	OFD-121A-2.8	Hotwell Emergency Makeup #1 Control Inlet	M	M					B				NR	F	3 Mo		
2C-391	OFD-121A-2.8	TDEFDWP Suction from Hotwell	P	X					B		X		102	F	S/D	65	
2C-568	OFD-121A-2.8	MDEFDWP Suction from Hotwell Check C	C					X	C					F	RF	76	
2C-573	OFD-121A-2.8	MDEFWPs Suction from UST	M	M					B				NR	F	S/D	86	
2CA-27	OFD-127B-2.2	BA Supply to CFT "2A"	M	J	P				A								37
2CA-29	OFD-127B-2.2	BA Supply to CFT "2B"	M	J	P				A								37
2CA-63	OFD-110A-1.8	Caustic MT to LPI Suct. M	M		M				B				NR	F	3 Mo		
2CA-98	OFD-110A-1.8	Caustic to LP Suction	M		M				B				NR	F	3 Mo		
2CC-7	OFD-144A-2.2	CC from RCP	P	J	S				A		X		45	F	S/D	40	
2CC-8	OFD-144A-2.2	CC from RCP	P	J	S				A		X		18	F	S/D	41	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E I N S T R U C T I O N	F U L L S T R O K E	R E Q U E S T I O N	C O M M E N T S
2CC-20	OFD-144A-2.2	CC to RCP	C	J			X	A/C						F	RF	42
2CC-21	OFD-144A-2.2	Supply Hdr. Penet 3 Drain	M	X				A							RF	
2CC-22	OFD-144A-2.2	Supply Hdr Penet 3 Vent	M	X				A							RF	
2CC-23	OFD-144A-2.2	Supply Hdr Penet 3 PX	M	X				A							RF	
2CC-24	OFD-144A-2.2	CC to RCP	C	J			X	A/C						F	RF	42
2CC-54	OFD-144A-2.2	Return Penet 54 Drain	M	X				A							RF	
2CC-55	OFD-144A-2.2	Return Penet 54 Vent	M	X				A							RF	
2CC-56	OFD-144A-2.2	Return Penet 54 PX	M	X				A							RF	
2CC-76	OFD-144A-2.3	CC to CRD Service Structure	C	J			X	A/C						F	RF	42
2CC-77	OFD-144A-2.3	CC to CRD Service Structure	C	J			X	A/C						F	RF	42
2CC-80	OFD-144A-2.3	CRD Hdr Penet 44 Vent	M	X				A							RF	
2CC-81	OFD-144A-2.3	CRD Hdr Penet 44 PX	M	X				A							RF	
2CC-82	OFD-144A-2.3	CRD Hdr Penet 44 Drain	M	X				A							RF	

[illegible]

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E I S T R U C T I O N	F U L L P A R T I A L O P E R A T I O N	F R E Q U E N C Y	C O M M E N T S
2CF-4	OFD-102A-2.3	"B" CFT Isolation Valve	M	J	P			A								16
2CF-5	OFD-102A-2.3	"A" CFT Vent	P		P			B	S							
2CF-6	OFD-102A-2.3	"B" CFT Vent	P		P			B	S							
2CF-7	OFD-102A-2.3	CF Bleed to Waste Holdup Tank	M	J	P			A								16
2CF-11	OFD-102A-2.3	"A" CFT Disch. Check Valve	C	X			X	A/C						P	S/D	17
2CF-12	OFD-102A-2.3	"A" CFT Disch. Check Valve	C	P			X	A/C						P	S/D	17
2CF-13	OFD-102A-2.3	"B" CFT Disch. Check Valve	C	X			X	A/C						P	S/D	17
2CF-14	OFD-102A-2.3	"B" CFT Disch. Check Valve	C	P			X	A/C						P	S/D	17
2CF-19	OFD-102A-2.3	Sample Block	M	J	P			A								16
2CF-34	OFD-102A-2.3	CF Vent to Vent Hdr. Penetration	M					A								91
2CF-35	OFD-102A-2.3	CF Vent to Waste Gas Filter Block	M					A								91
2CF-36	OFD-102A-2.3	CF Vent to Vent Header Block	M					A								91

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S T I M E C	F U L L S T R O K E O R	F R E Q U E N C Y	C O M M E N T S
2CS-5	OFD-107A-2.2	QT RB Isolation	P	J	S			A		X		20	F	3 Mo	26
2CS-6	OFD-107A-2.2	QT RB Isolation	P	J	S			A		X		5	F	3 Mo	
2CS-11	OFD-107A-2.1	QT Recirc. Check Valve	C	J			X	A/C						RF	27
2CS-12	OFD-107A-2.1	QT Recirc. Check Valve	C	J			X	A/C						RF	27
2CS-17	OFD-107A-2.1	QT Return Penet 38 Drain	M	X				A						RF	
2CS-18	OFD-107A-2.1	QT Return Penet 38 Vent	M	X				A						RF	
2CS-23	OFD-107A-2.2	Comp Drain Hdr Penet 29 Drain	M	X				A						RF	
2CS-24	OFD-107A-2.2	Comp Drain Hdr Penet 29 Vent	M	X				A						RF	
2CS-25	OFD-107A-2.2	Comp Drain Hdr Penet 29 PX	M	X				A						RF	
2CS-64	OFD-106A-2.2	CBAT Outlet	P		X			B		X		10	F	3 Mo	
2CS-73	OFD-101A-2.2	CBAT to LDST	C				X	C					F	3 Mo	75
2DW-59	OFD-106E-2.1	DW to RB	M	J	P			A						RF	54
2DW-60	OFD-106E-2.1	DW to RB	M	J	P			A						RF	54

V A L V E	D R A W I N G	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S	L I M I T S	P U L L I N G	F R E Q U E N C Y	C O M M E N T S
2DW-278	OFD-106E-1.2	DW Flush Supply to PASP	P		X		B					†		F	3 Mo	
2DW-279	OFD-106E-1.2	DW Check to Post Accident Sample Panel (PASP)	C				X	C						F	3 Mo	
2DW-280	OFD-107B-2.2	DW Flush for RB Normal Sump Pump	P		X		B					†		F	3 Mo	
2DW-281	OFD-110A-2.4	PASP Cooling Water Supply	M		M		B					NR		F	3 Mo	
2DW-282	OFD-110A-2.4	PASP Cooling Water Supply	M		M		B					NR		F	3 Mo	
2FDW-31	OFD-121B-2.3	"A" OTSG Main Block	P		X		B		X		226			F	S/D	71
2FDW-32	OFD-121B-2.3	"A" OTSG Main Flow Control Valve	P		X		B		X		40			F	S/D	71
2FDW-33	OFD-121B-2.3	EFDW to OTSG "A"	P		X		B		X		66			F	S/D	30
2FDW-35	OFD-121B-2.3	EFDW to OTSG "A"	P		X		B		X		25			F	S/D	30
2FDW-36	OFD-121B-2.3	EFDW to OTSG "A"	P		X		B		X		48			F	S/D	30
2FDW-38	OFD-121B-2.3	EFDW to OTSG "A"	P		X		B		X		42			F	S/D	31
2FDW-39	OFD-121D-2.1	EFDW to OTSG "A" Check Valve	C				X	C						F	RF	32

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E T	S A F E T Y V A L V E T	C H E C K V A L V E T	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S T I M E	F U L L T R I P O K E	F R E Q U E N C Y	C O M M E N T S
2FDW-40	OFD-121B-2.3	"B" OTSG Main Block	P		X			B		X		226	F	S/D	71
2FDW-41	OFD-121B-2.3	"B" OTSG Main Flow Control Valve	P		X			B		X		40	F	S/D	71
2FDW-42	OFD-121B-2.3	EFDW to OTSG "B"	P		X			B		X		60	F	S/D	30
2FDW-44	OFD-121B-2.3	EFDW to OTSG "B"	P		X			B		X		25	F	S/D	30
2FDW-45	OFD-121B-2.3	EFDW to OTSG "B"	P		X			B		X		48	F	S/D	30
2FDW-47	OFD-121B-2.3	EFDW to OTSG "B"	P		X			B		X		45	F	S/D	31
2FDW-48	OFD-121D-2.1	EFDW to OTSG "B" Check	C				X	C					F	RF	32
2FDW-93	OFD-121D-2.1	Emerg FDWP Disch Line 2A Check	C				X	C					F	RF	80
2FDW-94	OFD-121D-2.1	Emerg. FDWP Disch. Line 2A	M		M			B				NR	F	3 Mo	
2FDW-95	OFD-121D-2.1	Emerg. FDWP Disch. Line 2B	C				X	C					F	RF	80
2FDW-96	OFD-121D-2.1	Emerg. FDWP Disch. Line B	M		M			B				NR	F	3 Mo	
2FDW-99	OFD-121D-2.1	Emerg. FDW Line "A" Check	C				X	C					F	RF	81
2FDW-101	OFD-121D-2.1	Emerg. FDW Line "B" Check	C				X	C					F	RF	81
2FDW-103	OFD-121B-2.5	S/G "2A" Shell Drain Block	P	J	P			A							33

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S S T	S A F E T Y V A L V E S T	C H E C K V A L V E S T	L O C K O P E N / S H U T	P O S I T I O N D N G	V E R I F I C A T I O N G	A R R E F U E T L I N G	S T R O K E S T I M E E C	F U L L T R A T T O R E	F R E Q U E N C Y	C O M M E N T S
2FDW-104	OFD-121B-2.5	S/G "2B" Shell Drain Block	P	J	P		A								33
2FDW-105	OFD-110A-2.1	OTSG "A" Sample	P	J	S		A		X		30		F	3 Mo	
2FDW-106	OFD-110A-2.1	OTSG "A" Sample	P	J	S		A		X		10		F	3 Mo	
2FDW-107	OFD-110A-2.1	OTSG "B" Sample	P	J	S		A		X		30		F	3 Mo	
2FDW-108	OFD-110A-2.1	OTSG "B" Sample	P	J	S		A		X		10		F	3 Mo	
2FDW-117	OFD-110A-2.1	"2A" OTSG Sample Penet 2 Vent	M	X			A							RF	
2FDW-118	OFD-110A-2.1	"2A" OTSG Sample Penet 2 Drain	M	X			A							RF	
2FDW-119	OFD-110A-2.1	"2A" OTSG Sample Penet 2 PX	M	X			A							RF	
2FDW-122	OFD-110A-2.1	"2A" OTSG Sample Penet 58 Vent	M	X			A							RF	
2FDW-123	OFD-110A-2.1	"2B" OTSG Sample Penet 58 Drain	M	X			A							RF	
2FDW-124	OFD-110A-2.1	"2B" OTSG Sample Penet 58 PX	M	X			A							RF	
2FDW-232	OFD-121D-2.1	OTSG "A" Emergency Hdr. Check	C				X	C					F	RF	32
2FDW-233	OFD-121D-2.1	OTSG "B" Emergency Hdr. Check	C				X	C					F	RF	32
2FDW-311	OFD-121D-2.1	EFDW to OTSG "A"	C				X	C					F	RF	1

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R I F I C A T I O N	S T R O I K E S T I M E	F U L L T I M E O K E	F R E Q U E N C Y	C O M M E N T S
2FDW-312	OFD-121D-2.1	EFDW to OTSG "B"	C				X	C						F	RF	1
2FDW-313	OFD-121D-2.1	EFDW Line "2A2" Disch. to SG "2A" X-Tie	M		M			B					NR	F	3 Mo	
2FDW-314	OFD-121D-2.1	EFDW Line "2B2" Disch. to SG "2B" X-Tie	M		X			B							3 Mo	
2FDW-315	OFD-121D-2.1	EFDW to OTSG "A"	P		X			B		X		45		F	3 Mo	
2FDW-316	OFD-121D-2.1	EFDW to OTSG "B"	P		X			B		X		50		F	3 Mo	
2FDW-317	OFD-121D-2.1	EFDW to OTSG "B"	C				X	C						F	RF	1
2FDW-318	OFD-121D-2.1	EFDW to OTSG "A"	C				X	C						F	RF	1
2FDW-345	OFD-121D-2.1	"2A" SG Emergency Hdr. Check	C				X	C						F	RF	2
2FDW-346	OFD-121D-2.1	"2B" SG Emergency Hdr. Check	C				X	C						F	RF	2
2FDW-368	OFD-121D-2.1	TDEFWP Disch. to SG "2A" Block (Emerg-Emerg Hdr)	P		X			B		X				F	3 Mo	
2FDW-369	OFD-121D-2.1	TDEFWP Disch. to SG "2B" Block (Emerg-Emerg Hdr)	P		X			B		X				F	3 Mo	
2FDW-370	OFD-121D-2.1	MDEFWP "A" Min. Flow Recirc	C				X	C						F	RF	69

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E R F E L I N G	S T R O K E S T I M E C	L I M I T S I S E C	F U L L P A R T I A L O K E	F R E Q U E N C Y	C O M M E N T S
2FDW-372	OFD-121D-2.1	MDEFWP "2A" Disch. to SG "2A" (Emerg-Emerg Hdr)	P		X			B		X				F	3 Mo	
2FDW-373	OFD-121D-2.1	MDEFW to OTSG "A"	C				X	C						F	RF	1
2FDW-374	OFD-121D-2.1	MDEFWP "2A" Disch to SG "2A" (Nor-Emerg Hdr)	P		X			B		X				F	3 Mo	
2FDW-375	OFD-121D-2.1	MDEFWP "2A" Disch. Check to SG "2A" (Nor-Emerg Hdr)	C				X	C						F	RF	82
2FDW-380	OFD-121D-2.1	MDEFWP "B" Min. Flow Recirc	C				X	C						F	RF	69
2FDW-382	OFD-121D-2.1	MDEFWP "2B" Disch. to SG "2B" (Emerg-Emerg Hdr)	P		X			B		X				F	3 Mo	
2FDW-383	OFD-121D-2.1	MDEFW to OTSG "B"	C				X	C						F	RF	1
2FDW-384	OFD-121D-2.1	MDEFWP "2B" Disch. to SG "2B" (Nor-Emerg Hdr)	P		X			B		X				F	3 Mo	
2FDW-385	OFD-121D-2.1	MDEFWP "2B" Disch. Check to SG "2B" (Nor-Emer Hdr)	C				X	C						F	RF	82
2FDW-442	OFD-121D-2.1	EFDW to "B" S/G Outside Check	C				X	C						F	RF	2

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	C A T E G O R Y	L O C K	P O S I T I O N	V E R I F I C A T I O N	A R R I F I C A T I O N	S T R O K E	L I M I T S	P U L L I N G	F R E Q U E N C Y	C O M M E N T S
2FW-64	OFD-106E-2.1	FW to RB			M	J	P			A								RF	53
2FW-65	OFD-106E-2.1	FW to RB			M	J	P			A								RF	54
2FW-66	OFD-106E-2.1	RB FW Header Drain (46)			M	X				A								RF	
2GWD-10	OFD-107A-2.1	QT Vent Penet 18 Vent			M	X				A								RF	
2GWD-11	OFD-107A-2.1	QT Vent Penet 18 Vent			M	X				A								RF	
2GWD-12	OFD-107A-2.1	QT Vent			P	J	S			A		X		20		F		3 Mo	26
2GWD-13	OFD-107A-2.1	QT Vent			P	J	S			A		X		15		F		3 Mo	
2HP-3	OFD-101A-2.1	"A" LD Cooler Outlet			P	J	S			A		X		40		F		3 Mo	
2HP-4	OFD-101A-2.1	"B" LD Cooler Outlet			P	J	S			A		X		40		F		3 Mo	
2HP-5	OFD-101A-2.1	LD Cooler Outlet			P	J	S			A		X		4		F		S/D	8
2HP-16	OFD-101A-2.2	Makeup to LDST			P		X			B		X		5		F		3 Mo	
2HP-20	OFD-101A-2.1	RC Pump Seal Return			P	J	S			A		X		38		F		S/D	9

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E I F I C A C I T Y	A T T E N T I O N	S T R O K E S	L I M I T S	F U L L T I M E	P A R T I A L O K E	F R E Q U E N C Y	C O M M E N T S
2HP-21	OFD-101A-2.1		RC Pump Seal Return	P	J	S		A		X		4	F	S/D	10			
2HP-24	OFD-101A-2.3		"A" HPI Pump Suct. from BWST	P		S		B		X		14	F	3 Mo				
2HP-25	OFD-101A-2.3		"C" HPI Pump Suct. from BWST	P		S		B		X		14	F	3 Mo				
2HP-26	OFD-101A-2.4		"A" Loop Injection	P		S		B		X		14	F	S/D	11			
2HP-27	OFD-101A-2.4		"B" Loop Injection	P		S		B		X		14	F	3 Mo				
2HP-36	OFD-101A-2.1		Letdown Penet 6 Vent	M	X			A									RF	
2HP-37	OFD-101A-2.1		Letdown Penet 6 Drain	M	X			A									RF	
2HP-68	OFD-101A-2.1		Seal Return Penet 7 Vent	M	X			A									RF	
2HP-69	OFD-101A-2.1		Seal Return Penet 7 Drain	M	X			A									RF	
2HP-83	OFD-101A-2.1		Letdown Line Penet 6 Vent	M	X			A									RF	
2HP-101	OFD-101A-2.3		"A" HPI Pump Suct. Check Valve	C				X	C						P		RF	6
2HP-102	OFD-101A-2.3		"C" HPI Pump Suct. Check Valve	C				X	C						P		RF	6
2HP-105	OFD-101A-2.3		"A" HPI Disch. Check Valve	C				X	C						P/F		3 Mo	7
2HP-109	OFD-101A-2.3		"B" HPI Disch. Check Valve	C				X	C						P/F		3 Mo	7

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F U E L I N G	S T R O K E S	L I M I T S	P A R T I A L O K E	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
2HP-113	OFD-101A-2.3	"C" HPI Disch. Check Valve	C						X	C						P/F		3 Mo	7	
2HP-120	OFD-101A-2.4	"A" Loop Injection	P		X					B		X		25		F		S/D	51	
2HP-126	OFD-101A-2.4	"A" Loop Check Valve	C						X	C						F		S/D	12	
2HP-127	OFD-101A-2.4	"A" Loop Check Valve	C						X	C						F		S/D	12	
2HP-144	OFD-101A-2.4	Seal Supply to Pump "A2"	C	J					X	A/C						F		RF	61	
2HP-145	OFD-101A-2.4	Seal Supply to Pump "A1"	C	J					X	A/C						F		RF	61	
2HP-146	OFD-101A-2.4	Seal Supply to Pump "B2"	C	J					X	A/C						F		RF	61	
2HP-147	OFD-101A-2.4	Seal Supply to Pump "B1"	C	J					X	A/C						F		RF	61	
2HP-152	OFD-101A-2.4	"B" Loop Check Valve	C						X	C						F		RF	13	
2HP-153	OFD-101A-2.4	"B" Loop Check Valve	C						X	C						F		RF	13	
2HP-155	OFD-127B-2.2	CF Tank "A" Fill	M	J	P					A										38
2HP-156	OFD-127B-2.2	CF Tank "B" Fill	M	J	P					A										38
2HP-188	OFD-101A-2.4	"B" Loop Check Valve	C						X	C						F		RF	14	
2HP-194	OFD-101A-2.4	"A" Loop Check Valve	C						X	C						F		S/D	15	

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	C A T E G O R Y	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E S	L I M I T S	P A R T I A L O R E	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
2HP-202	OFD-101A-2.4	RCP "A2" Seal Supply Penet 23 Vent	M	X						A										RF	
2HP-204	OFD-101A-2.4	RCP "A2" Seal Supply Penet 23 Drain	M	X						A										RF	
2HP-209	OFD-101A-2.4	RCP "A1" Seal Supply Penet 23 Vent	M	X						A										RF	
2HP-211	OFD-101A-2.4	RCP "A1" Seal Supply Penet 23 Drain	M	X						A										RF	
2HP-216	OFD-101A-2.4	RCP "B2" Seal Supply Penet 10 Vent	M	X						A										RF	
2HP-218	OFD-101A-2.4	RCP "B2" Seal Supply Penet 10 Drain	M	X						A										RF	
2HP-223	OFD-101A-2.4	RCP "B1" Seal Supply Penet 10 Vent	M	X						A										RF	
2HP-225	OFD-101A-2.4	RCP "B1" Seal Supply Penet 10 Drain	M	X						A										RF	
2HP-284	OFD-101A-2.4	Seal Supply to RCP "A2"	C	J					X	A/C								F		RF	61
2HP-286	OFD-101A-2.4	Seal Supply to RCP "B2"	C	J					X	A/C								F		RF	61
2HP-333	OFD-101A-2.1	Nitrogen Decay Tank Drain (6)	M	X						A										RF	
2HP-389	OFD-101A-2.4	Seal Supply to RCP "B1"	C	J					X	A/C								F		RF	61
2HP-390	OFD-101A-2.4	Seal Supply to RCP "A1"	C	J					X	A/C								F		RF	61
2HP-409	OFD-101A-2.4	B Loop HPI X-Connect	P		X					B			X			10		F		S/D	46

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C E P T I O N S	S A F E T Y	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N D	V E R I F I C A T I O N G	A R R I E R F E E L I N G	S T R O K E M I S T E R E C	P U L L S T R O K E R E	F R E Q U E N C Y	C O M M E N T S
2HP-410	OFD-101A-2.4	A Loop HPI X-Connect	P		X			B		X		10	F	S/D	46	
2HP-420	OFD-101A-2.1	RCP Seal Return Header Vent (7)	M	X				A							RF	
2HPSW-184	OFD-124A-2.3	LPSW to TDEFWP Oil Coolers	P		X			B		X		10	F	3 Mo		
2HPSW-189	OFD-124C-1.2	TDEFDWP Cooling Water Cont. Vlv Inlet	M		P			B	0							
2HPSW-191	OFD-124C-1.2	Emerg. FWPT Cooling Jacket	C				X	C					F	3 Mo		
2HPSW-192	OFD-124C-1.2	TDEFDWP Cooling Water Cont. Vlv Outlet	M		P			B	0							
2HPSW-193	OFD-124A-1.3	Emerg. FWPT Cooling Jacket	C				X	C					F	3 Mo		
2HPSW-248	OFD-124C-1.3	Emerg. FWPT Cooling Jacket	C		P			B	0							
2HPSW-556	OFD-124C-2.3	HPSW Emer Cooling Press Reg Valve	C				X	C					F	S/D	77	
2IA-90	PO-149W	Penetration Isolation	M	J	P			A								43
2IA-91	PO-149W	Penetration Isolation	M	J	P			A								43

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E S T I M E C	F U L L T I M E C O R R E	F R E Q U E N C Y	C O M M E N T S
2IA-2423	OFD-110A-2.4	PASP Air Supply	M	M				B					NR	F	3 Mo	
2LP-1	OFD-102A-2.1	DH Valve	P	X				B		X		74	F	S/D	18	
2LP-2	OFD-102A-2.1	DH RB Isolation	P	X				B		X		72	F	S/D	18	
2LP-3	OFD-102A-2.1	DH RB Isolation	P	X				B		X		85	F	3 Mo		
2LP-5	OFD-102A-2.1	LP Pump "A" Suction	P	X				B		X		130	F	3 Mo		
2LP-6	OFD-102A-2.1	LPI Suction X-Connect	P	X				B		X		120	F	3 Mo		
2LP-7	OFD-102A-2.1	LPI Suction X-Connect	P	X				B		X		120	F	3 Mo		
2LP-8	OFD-102A-2.1	LP Pump "B" Suction	P	X				B		X		130	F	3 Mo		
2LP-9	OFD-102A-2.2	LPI Disch. X-Connect	P	X				B		X		110	F	3 Mo		
2LP-10	OFD-102A-2.2	LPI Disch. X-Connect	P	X				B		X		100	F	3 Mo		
2LP-11	OFD-102A-2.2	Cooler "A" Inlet	P	X				B		X		168	F	3 Mo		
2LP-12	OFD-102A-2.2	LPI "A" Cooler Outlet	P	X				B		X		125	F	3 Mo		
2LP-14	OFD-102A-2.2	LPI "B" Cooler Outlet	P	X				B		X		125	F	3 Mo		

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C I S S T	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R I E F U E L I N G	S T R O K E I S T E C	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
2LP-15	OFD-102A-2.2	LPI "A" Header to HPI	P		X			B		X		70	F		3 Mo	
2LP-16	OFD-102A-2.2	LPI "B" Header to HPI	P		X			B		X		70	F		3 Mo	
2LP-17	OFD-102A-2.2	LPI "A" RB Isolation Valve	P		S			B		X		15	F		S/D	47
2LP-18	OFD-102A-2.2	LPI "B" RB Isolation Valve	P		S			B		X		15	F		S/D	47
2LP-19	OFD-102A-2.1	RB Emergency Sump	P		X			B		X		100	F		3 Mo	
2LP-20	OFD-102A-2.1	RB Emergency Sump	P		X			B		X		100	F		3 Mo	
2LP-21	OFD-102A-2.1	BWST to LPI Suction	P		S			B		X		15	F		3 Mo	
2LP-22	OFD-102A-2.1	BWST to LPI Suction	P		S			B		X		15	F		3 Mo	
2LP-25	OFD-102A-2.1	RC Return Header Relief Valve	C			X		C							RF	
2LP-28	OFD-102A-2.1	BWST Isolation	M		P			B	0							
2LP-29	OFD-102A-2.1	BWST to "A" LPI Header	C				X	C					P		3 Mo	45
2LP-30	OFD-102A-2.1	BWST to "B" LPI Header	C				X	C					P		3 Mo	45
2LP-31	OFD-102A-2.2	"A" LPI Pump Discharge	C				X	C					P/F		3 Mo	68
2LP-33	OFD-102A-2.2	"B" LPI Pump Discharge	C				X	C					F		3 Mo	

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E I S T E M E C	P U L L I N G O K E	F R E Q U E N C Y	C O M M E N T S
2LP-46	OFD-100A-2.2	Auxiliary Spray Check Valve	C	X						A/C							S/D	62
2LP-47	OFD-102A-2.2	"B" LPI Header Check Valve	C	P					X	A/C					F		S/D	19
2LP-48	OFD-102A-2.2	"A" LPI Header Check Valve	C	P					X	A/C					F		S/D	19
2LP-51	OFD-102A-2.1	Caustic to LP Suction	M		M					B				NR	F		3 Mo	
2LP-55	OFD-101A-2.3	"A" Cooler Out. to HP Pump Suction	C						X	C					P		RF	70
2LP-57	OFD-101A-2.3	"B" Cooler Out. to HP Pump Suction	C						X	C					P		RF	70
2LP-65	OFD-102A-2.1	Drain to D ₂ from Loop "B"	M		M					B				NR	F		3 Mo	
2LP-68	OFD-102A-2.1	D/H Inlet to "B" Cooler	M		M					B				NR	F		S/D	66
2LP-69	OFD-102A-2.2	Switchover Mode Control	P		X					B		X		106	F		3 Mo	
2LP-73	OFD-102A-2.2	"B" Cooler Disc. Block	M		M					B				NR	F		S/D	66
2LP-74	OFD-102A-2.2	"B" Cooler Disc. Block to "A" Pump	M		M					B				NR	F		S/D	66
2LP-75	OFD-102A-2.2	"B" Cooler Disc. Block to "C" Pump	M		M					B				NR	F		S/D	66
2LP-103	OFD-102A-2.1	Boron Dilution	P		X					B		X		15	F		S/D	20
2LP-104	OFD-102A-2.1	Boron Dilution	P		X					B		X		10	F		S/D	20

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S S T	S A F E T Y	C H E C K	V A L V E	C A T E G O R Y	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S	L I M I T S	P U L L T I A T I O N	F R E Q U E N C Y	C O M M E N T S
2LP-108	OFD-102A-2.1	Boron Dilution	M		M			B							NR		F		3 Mo
2LP-109	OFD-102A-2.1	Boron Dilution	M		M			B							NR		F		3 Mo
2LP-120	OFD-102A-2.1	PASP Return Check Valve	C					X	C								F		3 Mo
2LP-121	OFD-102A-2.1	Post Accident Sample Return	P		X			B							†		F		3 Mo
2LPSW-4	OFD-124B-2.1	DH Cooler "2A" Outlet	P		S			B				X		100			F		3 Mo
2LPSW-5	OFD-124B-2.1	DH Cooler "2B" Outlet	P		S			B				X		100			F		3 Mo
2LPSW-6	OFD-124B-2.4	LPSW to RCP Oil Coolers	P		S			B				X		66			F		S/D 52
2LPSW-7	OFD-124B-2.4	LPSW to RCP "2A1" Oil Coolers	P		X			B				X		30			F		S/D 55
2LPSW-8	OFD-124B-2.4	LPSW from RCP "2A1" Oil Coolers	P		X			B				X		30			F		S/D 55
2LPSW-9	OFD-124B-2.4	LPSW to RCP "2B1" Oil Coolers	P		X			B				X		30			F		S/D 55
2LPSW-10	OFD-124B-2.4	LPSW from RCP "2B1" Oil Coolers	P		X			B				X		30			F		S/D 55
2LPSW-11	OFD-124B-2.4	LPSW to RCP "2B2" Oil Coolers	P		X			B				X		30			F		S/D 55
2LPSW-12	OFD-124B-2.4	LPSW from RCP "2B2" Oil Coolers	P		X			B				X		30			F		S/D 55

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F Y I N G	S T R O K E S	F U L L R E T A T I O N	F R E Q U E N C Y	C O M M E N T S
2LPSW-13	OFD-124B-2.4	LPSW to RCP "2A2" Oil Coolers	P	X					B			X	30	F	S/D	55	
2LPSW-14	OFD-124B-2.4	LPSW from RCP "2A2" Oil Coolers	P	X					B			X	30	F	S/D	55	
2LPSW-15	OFD-124B-2.4	LPSW from RCP Oil Coolers	P	J	S				A			X	72	F	S/D	52	
2LPSW-16	OFD-124B-2.2	LPSW to RBCU "2A"	P	X					B			X	57	F	3 Mo		
2LPSW-18	OFD-124B-2.2	LPSW from RBCU "2A"	P	S					B			X	38	F	3 Mo		
2LPSW-19	OFD-124B-2.2	LPSW to RBCU "2B"	P	X					B			X	57	F	3 Mo		
2LPSW-21	OFD-124B-2.2	LPSW from RBCU "2B"	P	S					B			X	38	F	3 Mo		
2LPSW-22	OFD-124B-2.2	LPSW to RBCU "2C"	P	X					B			X	57	F	3 Mo		
2LPSW-24	OFD-124B-2.2	LPSW from RBCU "2C"	P	X					B			X	38	F	3 Mo		
2LPSW-75	OFD-124B-2.1	DH Cooler "2A" Outlet C.V.	C					X	C					F	3 Mo		
2LPSW-76	OFD-124B-2.1	DH Coolers "2B" Outlet C.V.	C					X	C					F	3 Mo		
2LPSW-108	OFD-124B-2.1	RBCU Outlet	M	P					B	0							
2LPSW-137	OFD-124A-2.3	LPSW To Unit 2 TDEFDWP Cooling Jacket	P	X					B			X	NR	F	3 Mo		

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E T	S A F E T Y V A L V E T E S T	C H E C K V A L V E T E S T	O P E N / S H U T C A T E G O R Y	L O C K	P O S I T I O N D	V E R I F I C A T I O N G	A T T E N T I O N G	S T R O K E S T I M E C	F U L L S T R O K E O R E	F R E Q U E N C Y	C O M M E N T S
2LPSW-138	OFD-124A-2.3	Bypass around Vlv to Cool. Jacket	P		X			B			X		10	F	3 Mo	
2LPSW-144	OFD-124B-2.4	LPSW Return Penet 22 Test Drain	M	X				A							RF	
2LPSW-145	OFD-124B-2.4	LPSW Return Penet 22 Test Vent	M	X				A							RF	
2LPSW-146	OFD-124B-2.4	LPSW Return Penet 22 Test Gauge	M	X				A							RF	
2LPSW-251	OFD-124B-2.1	DH Cooler Outlet	P		X			B			X		52	F	3 Mo	
2LPSW-252	OFD-124B-2.1	DH Cooler Outlet	P		X			B			X		52	F	3 Mo	
2LPSW-516	OFD-124A-2.3	Auto Valve from "A" MDEFDWP Motor	P		X			B					†	F	3 Mo	
2LPSW-525	OFD-124A-2.3	Auto Valve from "B" MDEFDWP Motor	P		X			B					†	F	3 Mo	
2LPSW-561	OFD-124B-2.4	RCP "2B1/2B2" M Cool Rtn Drn (22)	M	X				A							RF	
2LPSW-565	OFD-124B-2.2	RB Aux. Cooler Inlet	P		S			B			X		55	F	3 Mo	
2LPSW-566	OFD-124B-2.2	RBCU Inlet	P		S			B			X		55	F	3 Mo	
2LPSW-666	OFD-124B-2.4	RCP "2A1" M Cool Rtn Drn (22)	M	X				A							RF	
2LPSW-667	OFD-124B-2.4	Unit 2 RCP Return Line Drn (22)	M	X				A							RF	
2LPSW-687	OFD-124A-2.3	Unit 2 TDEFWP Cooling Water Check	C				X	C						F	3 Mo	

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X H E R C I S E	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E M P T E D	S T R O K E S	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
2LRT-24	O-1472		Leak Rate Test	M	J	P			A						RF	44
2LRT-25	O-1472		Leak Rate Test	M	J	P			A						RF	44
2LRT-36	O-1472		Leak Rate Test	M	J	P			A						RF	44
2LRT-37	O-1472		Leak Rate Test	M	J	P			A						RF	44
2LRT-38	O-1472		Leak Rate Test	M	J	P			A						RF	44
2LRT-39	O-1472		Leak Rate Test	M	J	P			A						RF	44
2LWD-1	OFD-107B-2.1		Normal Sump Suction	P	J	S			A		X		15	F	3 Mo	28
2LWD-2	OFD-107B-2.1		Normal Sump Suction	P	J	S			A		X		15	F	3 Mo	
2LWD-27	OFD-107B-1.1		RB Normal Sump Penet 5 Drain	M	X				A						RF	
2LWD-28	OFD-107B-1.1		RB Normal Sump Penet 5 Vent	M	X				A						RF	
2LWD-29	OFD-107B-1.1		RB Normal Sump Penet 5 PX	M	X				A						RF	
2LWD-99	OFD-107D-2.2		Emerg. Sump Drain Pene. (40) Block	M					A							90
2LWD-103	OFD-107D-2.2		Emerg. Sump Drain Pene. (40) Block	M					A							90

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E S	L I M I T S	P A R T I A L	F U L L	R E Q U E S T	F R E Q U E N C Y	C O M M E N T S
2LWD-1026	OFD-107B-2.2	RB Norm. Sump Sample Pump Suction	P		X			B						†		F			3 Mo	
2LWD-1027	OFD-107B-2.2	RB Norm. Sump Sample Pump Disc. Check	C					X	C							F			3 Mo	
2LWD-1028	OFD-107B-2.2	RB Norm. Sump Sample Pump Discharge	P		X			B						†		F			3 Mo	
2MS-1	OFD-122A-2.1	Main Steam Relief Valve	R				X	C								F		RF	72	
2MS-2	OFD-122A-2.1	Main Steam Relief Valve	R				X	C								F		RF	72	
2MS-3	OFD-122A-2.1	Main Steam Relief Valve	R				X	C								F		RF	72	
2MS-4	OFD-122A-2.1	Main Steam Relief Valve	R				X	C								F		RF	72	
2MS-5	OFD-122A-2.1	Main Steam Relief Valve	R				X	C								F		RF	72	
2MS-6	OFD-122A-2.1	Main Steam Relief Valve	R				X	C								F		RF	72	
2MS-7	OFD-122A-2.1	Main Steam Relief Valve	R				X	C								F		RF	72	
2MS-8	OFD-122A-2.1	Main Steam Relief Valve	R				X	C								F		RF	72	
2MS-9	OFD-122A-2.1	Main Steam Relief Valve	R				X	C								F		RF	72	

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F Y I N G	A R R E S T I N G	S T R I K E S	P U L S E S	F R E Q U E N C Y	C O M M E N T S
2MS-10	OFD-122A-2.1	Main Steam Relief Valve	R		X	C										F	RF	72
2MS-11	OFD-122A-2.1	Main Steam Relief Valve	R		X	C										F	RF	72
2MS-12	OFD-122A-2.1	Main Steam Relief Valve	R		X	C										F	RF	72
2MS-13	OFD-122A-2.1	Main Steam Relief Valve	R		X	C										F	RF	72
2MS-14	OFD-122A-2.1	Main Steam Relief Valve	R		X	C										F	RF	72
2MS-15	OFD-122A-2.1	Main Steam Relief Valve	R		X	C										F	RF	72
2MS-16	OFD-122A-2.1	Main Steam Relief Valve	R		X	C										F	RF	72
2MS-17	OFD-122A-2.2	Steam Header "A" Turbine Bypass	P	X		B						X	120			F	S/D	67
2MS-19	OFD-122A-2.2	Turbine Bypass Control "A"	P	X		B						X	38			F	S/D	67
2MS-22	OFD-122A-2.2	Turbine Bypass Control "B"	P	X		B						X	38			F	S/D	67
2MS-24	OFD-122A-2.2	MS Line "A" to Aux. Steam	P	X		B						X	72			F	3 Mo	
2MS-26	OFD-122A-2.2	Steam Header "B" Turbine Bypass	P	X		B						X	120			F	S/D	67
2MS-28	OFD-122A-2.2	Turbine Bypass Control "C"	P	X		B						X	38			F	S/D	67
2MS-31	OFD-122A-2.2	Turbine Bypass Control "D"	P	X		B						X	38			F	S/D	67

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S S	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E R F E L T I O N	S T R O K E S	F U L L T R I P O K E R	F R E Q U E N C Y	C O M M E N T S
2MS-33	OFD-122A-2.2	MS Line "B" to Aux. Steam	P		X			B			X			72	F	3 Mo	
2MS-82	OFD-122A-2.4	MS Line "A" to EFDW Turbine	P		X			B			X			72	F	3 Mo	
2MS-83	OFD-122A-2.4	MS Line "A" to EFDW Turbine Pump Check	C					X	C						F	3 Mo	
2MS-84	OFD-122A-2.4	MS Line "B" to EFDW Turbine	P		X			B			X			72	F	3 Mo	
2MS-85	OFD-122A-2.4	MS "Line B" to EFDW Turbine Pump Check	C					X	C						F	3 Mo	
2MS-91	OFD-122A-2.4	MS to EFPT Supply Check	C					X	C						F	3 Mo	
2MS-93	OFD-122A-2.4	EFPT Supply Trip Valve	P		X			B			X			25	F	3 Mo	
2MS-102	OFD-122B-2.1	MS Stop Valve 4	P	X	X			A			X			1/15	P/F	3 Mo	34
2MS-103	OFD-122B-2.1	MS Stop Valve 3	P	X	X			A			X			1/15	P/F	3 Mo	34
2MS-104	OFD-122B-2.1	MS Stop Valve 2	P	X	X			A			X			1/15	P/F	3 Mo	34
2MS-105	OFD-122B-2.1	MS Stop Valve 1	P	X	X			A			X			1/15	P/F	3 Mo	34
2MS-153	OFD-122A-2.1	MS Line "A" Atmos Dump Blk Vlv Byp	M		M			B						NR	F	S/D	78
2MS-154	OFD-122A-2.1	MS Line "A" Atmos Dump Isol Vlv	M		M			B						NR	F	S/D	78

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E M P T S	F U L L T A L O K E	F R E Q U E N C Y	C O M M E N T S
2MS-155	OFD-122A-2.1	MS Line "B" Atmos Dump Blk Vlv	M	M					B				NR	F	S/D	78
2MS-156	OFD-122A-2.1	MS Line "B" Atmos Dump Isol Vlv	M	M					B				NR	F	S/D	78
2MS-161	OFD-122A-2.1	MS Line "A" Atmos Dump Blk Vlv Byp	M	M					B				NR	F	S/D	78
2MS-162	OFD-122A-2.1	MS Line "A" Atmos Dump Control Vlv	M	M					B				NR	F	S/D	78
2MS-163	OFD-122A-2.1	MS Line "B" Atmos Dump Blk Vlv Byp	M	M					B				NR	F	S/D	78
2MS-164	OFD-122A-2.1	MS Line "B" Atmos Dump Control Vlv	M	M					B				NR	F	S/D	78
2N-106	OFD-127B-2.2	LP N ₂ Heater Inlet	M	J	P				A							35
2N-107	OFD-127B-2.2	LP N ₂ Heater Inlet	M	J	P				A							35
2N-116	OFD-127B-2.2	Quench Tank Supply	M	J	P				A							35
2N-119	OFD-127B-2.2	S/G Pressurizer Sup Blk	M	J	P				A							35
2N-128	OFD-127B-2.2	CF Tank "A" Supply	M	J	P				A							36
2N-130	OFD-127B-2.2	CF Tank "B" Supply	M	J	P				A							36

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K T E S T	E X E R C I S E T E S T	S A F E T Y V A L V E T E S T	C H E C K V A L V E T E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N D I N G	V E R I F I C A T I O N G	A T T E N T I O N G	S T R O K E I N S T R U C T I O N S	P U L L T I S T R O K E	F R E Q U E N C Y	C O M M E N T S
2PR-1	OFD-116A-2.1	RB Purge Outlet	P	J	S			A	S	X			8	F	S/D	4
2PR-2	OFD-116A-2.1	RB Purge Outlet	P	J	S			A	S	X			5	F	S/D	4
2PR-3	OFD-116A-2.1	RB Purge Control	P		S			B	S	X			5	F	S/D	4
2PR-4	OFD-116A-2.1	RB Purge Inlet	P		S			B	S	X			5	F	S/D	4
2PR-5	OFD-116A-2.1	RB Purge Inlet	P	J	S			A	S	X			5	F	S/D	4
2PR-6	OFD-116A-2.1	RB Purge Inlet	P	J	S			A	S	X			8	F	S/D	4
2PR-7	OFD-116C-2.1	RB Radiation Monitor	P	J	S			A		X			20	F	3 Mo	29
2PR-8	OFD-116C-2.1	RB Radiation Monitor	P	J	S			A		X			5	F	3 Mo	
2PR-9	OFD-116C-2.1	RB Radiation Monitor	P	J	S			A		X			15	F	3 Mo	29
2PR-10	OFD-116C-2.1	RB Radiation Monitor	P	J	S			A		X			5	F	3 Mo	
2PR-15	OFD-116B-2.1	PR Fan "A" Discharge	P		X			B		X			85	F	3 Mo	
2PR-19	OFD-116B-2.1	PR Fan "B" Discharge	P		X			B		X			85	F	3 Mo	
2PR-20	OFD-116B-2.1	PR Fan Suction Tie.	P		X			B					NR	F	RF	74
2PR-24	OFD-116A-2.1	RB Sample PX (60)	M	X				A							RF	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y V A L V E	C H E C K V A L V E	L O C K O P E N / S H U T	C A T E G O R Y	P O S I T I O N	V E N T I L I T Y	A T T E R F E C T I O N	S T R O K E S T I M E	L I M I T S S E C	P A R T I A L O R	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S	
2PR-25	OFD-116A-2.1	RB Hydrogen Purge Penet 61	M	X				A										RF	
2PR-27	OFD-116A-2.1	RB Exhaust Penet 20 Test	M	X				A										RF	
2PR-29	OFD-116A-2.1	RB Supply Penet 19 Test	M	X				A										RF	
2PR-59	OFD-116C-2.1	H ₂ Recombiner Inlet	P	J	X			A			X		20		F			3 Mo	29
2PR-60	OFD-116C-2.1	H ₂ Recombiner Outlet	P	J	X			A			X		20		F			3 Mo	29
2PR-68	OFD-116A-2.1	Radiation Block Inlet Drain (60)	M	X				A										RF	
2PR-71	OFD-110A-2.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F			3 Mo	56
2PR-72	OFD-110A-2.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F			3 Mo	56
2PR-73	OFD-110A-2.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F			3 Mo	56
2PR-74	OFD-110A-2.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F			3 Mo	56
2PR-75	OFD-110A-2.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F			3 Mo	56
2PR-76	OFD-110A-2.3	H ₂ Analyzer "B" Sample Select	P		X			B					†		F			3 Mo	56
2PR-77	OFD-110A-2.3	H ₂ Analyzer "B" Sample Select	P		X			B					†		F			3 Mo	56
2PR-78	OFD-110A-2.3	H ₂ Analyzer "B" Sample Select	P		X			B					†		F			3 Mo	56

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C I S E T	S A F E T Y V A L V E T	C H E C K V A L V E T	O P E N / S H U T Y	P O S I T I O N D	V E R I F I C A T I O N G	S T R O K E S T I M E C	F U L L T I S T R O K E	F R E Q U E N C Y	C O M M E N T S
2PR-79	OFD-110A-2.3	H ₂ Analyzer "B" Sample Select	P		X		B				†	F	3 Mo	56
2PR-80	OFD-110A-2.3	H ₂ Analyzer "B" Sample Select	P		X		B				†	F	3 Mo	56
2PR-81	OFD-110A-2.3	H ₂ Analyzer "A" Sample Select	P	J	F		A				2	F	3 Mo	
2PR-83	OFD-110A-2.3	Chan. "A" Supply to Hydrogen Anal./PASP	P		X		B				†	F	3 Mo	
2PR-84	OFD-110A-2.3	H ₂ Analyzer "A" Return	P	J	F		A				2	F	3 Mo	
2PR-86	OFD-110A-2.3	Chan. A. Return from Hydrogen Anal./PASP	P		X		B				†	F	3 Mo	
2PR-87	OFD-110A-2.3	H ₂ Analyzer "B" Inlet	P	J	F		A				2	F	3 Mo	
2PR-89	OFD-110A-2.3	Chan. "B" Supply to Hydrogen Anal./PASP	P		X		B				†	F	3 Mo	
2PR-90	OFD-110A-2.3	H ₂ Analyzer "B" Return	P	J	F		A				2	F	3 Mo	
2PR-92	OFD-110A-2.3	Chan. "B" Return from Hydrogen Anal./PASP	P		X		B				†	F	3 Mo	
2PR-93	OFD-110A-2.3	Chan. "A/B" PASP Supply Selector	P		X		B				†	F	3 Mo	
2PR-94	OFD-110A-2.3	Chan. "A/B" PASP Return Selector	P		X		B				†	F	3 Mo	

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V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K T E S T	E X C I S E T E S T	S A F E T Y V A L V E T E S T	C H E C K V A L V E T E S T	L O C K O P E N / S H U T C A T E G O R Y	P O S I T I O N I N D O N	V E R I F I C A T I O N T I M E	A R R E F E R E N C E I N G	S T R O K E S T I M E	F U L L T I M E O R E	F R E Q U E N C Y	C O M M E N T S		
2RC-4	OFD-100A-2.2	Block Valve for PORV	P		X			B		X		15	F		3 Mo		
2RC-5	OFD-110A-2.1	Pressure Steam Sample	P	J	S			A		X		30	F		3 Mo		
2RC-6	OFD-110A-2.1	Pressure Sample	P	J	S			A		X		30	F		3 Mo		
2RC-7	OFD-110A-2.1	Pressure Sample	P	J	S			A		X		10	F		3 Mo		
2RC-49	OFD-110A-2.1	Loop "B2" Drain PX (58)	M	X				A							RF		
2RC-50	OFD-110A-2.1	Press Sample Penet 58 Drain	M	X				A							RF		
2RC-51	OFD-110A-2.1	Press Sample Penet 58 Drain	M	X				A							RF		
2RC-66	OFD-100A-2.2	Power Operated Relief Valve (PORV)	P		X			B				†	F		S/D 59		
2RC-67	OFD-100A-2.2	Pressurizer Relief	R			X		C							RF 73		
2RC-68	OFD-100A-2.2	Pressurizer Relief	R			X		C							RF 73		
2RC-155	OFD-100A-2.1	Loop "A" High Point Vent	P		F			B				2	F		RF 63		
2RC-156	OFD-100A-2.1	Loop "A" High Point Vent Block	P		F			B				2	F		RF 63		
2RC-157	OFD-100A-2.1	Loop "B" High Point Vent	P		F			B				2	F		RF 63		
2RC-158	OFD-100A-2.1	Loop "B" High Point Vent Block	P		F			B				2	F		RF 63		

[illegible]

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	V A L V E	C A T E G O R Y	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S	L I M I T S	P U L L I N G	F R E Q U E N C Y	C O M M E N T S
2SF-74	OFD-104A-1.1	Transfer Tube Drain Block	M	J	P			A										RF	58	
SSF-2CCW-117	OFD-133A-2.5	SSF Aux. Ser. Water Outside Isol.	M		P			B	0											
SSF-2CCW-268	OFD-133A-2.5	SSF Aux Ser. Water Disch	M		M			B								NR	F		3 Mo	
SSF-2CCW-269	OFD-121D-2.1	SSF Aux. Ser. Water to A OTSG	P		X			B					X			16	F		S/D	3
SSF-2CCW-287	OFD-133A-2.5	SSF Aux Ser. Water Disch	M		M			B								NR	F		3 Mo	
SSF-2FDW-347	OFD-121D-2.1	SSF Aux. Ser. Water to B OTSG	P		X			B					X			16	F		S/D	50
SSF-2HP-398	OFD-101A-2.5	RC Makeup to RCP Seals	P		X			B					X			10	F		S/D	48
SSF-2HP-399	OFD-101A-2.5	RC Makeup to RCP Seals	C					X	C								F		S/D	5
SSF-2HP-400	OFD-101A-2.5	RC Makeup to RCP Seals	C					X	C								F		S/D	5
SSF-2HP-401	OFD-101A-2.5	RC Makeup to RCP Seals	C					X	C								F		S/D	5
SSF-2HP-402	OFD-101A-2.5	RC Makeup to RCP Seals	C					X	C								F		S/D	5
SSF-2HP-405	OFD-101A-2.5	RC Makeup Recirc..Line	P	J	X			A					X			9	F		3 Mo	
SSF-2HP-417	OFD-101A-2.5	RC Makeup Recirc. Line	P	J	X			A					X			8	F		3 Mo	

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E N T I L I Z E D	A I R F L O W	S T R O K E S	F U L L T I M E	R E Q U I R E D	C O M M E N T S
SSF-2HP-423	OFD-101A-2.5	RC Makeup Pump Recirc Drain (12)	M	X					A							RF	
SSF-2HP-425	OFD-101A-2.5	Letdown to Spent Fuel Vent (12)	M	X					A							RF	
SSF-2HP-426	OFD-101A-2.5	RC Return from Letdown Line	P	J	X				A			X		8	F	S/D	49
SSF-2HP-428	OFD-101A-2.5	RC Return from Letdown Line	P	J	X				A			X		13	F	3 Mo	
SSF-2SF-82	OFD-101A-2.5	RC Makeup Pump Suction	P	J	X				A			X		13	F	3 Mo	
SSF-2SF-97	OFD-104A-1.1	RC Makeup Pump Suction	P	J	X				A			X		13	F	3 Mo	
SSF-2SF-98	OFD-104A-1.1	SFP to RC Makeup Vent (11)	M	X					A							RF	
SSF-2SF-99	OFD-104A-1.2	SFP to RC Makeup Drain (11)	M	X					A							RF	
2V-186	OFD-121C-2.1	Main Condenser Vacuum Breaker	P		X				B			X			F	RF	84
Eight Internal Check Valves (No OFD Assigned)					C				X	C						RF	92

TABLE 3-3
OCONEE UNIT 3
VALVE TESTING PROGRAM

(Unit 3)

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	T E S T	E X C I S E T	S A F E T Y V A L V E T	C H E C K V A L V E T	O P E N / S H U T C A T E G O R Y	P O S I T I O N I N D I C A T O R	V E R I F I C A T I O N I N G	A T T E N T I O N I N G	S T R O K E S T I M E C	L I M I T S I S M E C	P A R T I A L O R	F U L L I S T R O K E	F R E Q U E N C Y	C O M M E N T S	
3BA-5	OFD-137A-3.2	RB Hdr. Isolation Valve	M	J	P				A										39
3BA-33	OFD-137A-3.2	RB Hdr. Isolation Valve	M	J	P				A										39
3BS-1	OFD-103A-3.1	"A" RBS RB Isolation Valve	P		S				B		X		37		F		3 Mo		
3BS-2	OFD-103A-3.1	"B" RBS RB Isolation Valve	P		S				B		X		37		F		3 Mo		
3BS-5	OFD-102A-3.1	"A" Suction from BWST C.V.	C					X	C						P		3 Mo	22	
3BS-6	OFD-102A-3.1	"B" Suction from BWST C.V.	C					X	C						P		3 Mo	22	
3BS-7	OFD-102A-3.1	"A" LPI Header to RBS	C					X	C						F		RF	57	
3BS-9	OFD-102A-3.1	"B" LPI Header to RBS	C					X	C						F		RF	57	
3BS-11	OFD-103A-3.1	RBS "A" Pump Disch. C.V.	C					X	C						P		3 Mo	23	
3BS-14	OFD-103A-3.1	"A" Header Penetration C.V.	C					X	C						P		RF	24	
3BS-16	OFD-103A-3.1	RBS "B" Pump Disch. C.V.	C					X	C						P		3 Mo	23	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S S	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E R F E E L I N G	S T R O K E S	L I M I T S	F U L L T R A C T I O N	F R E Q U E N C Y	C O M M E N T S
3BS-19	OFD-103A-3.1	"B" Header Penetration C.V.	C				X	C							P	RF	24
3C-156	OFD-121A-3.7	Emerg. FDW Pump Normal Supply	P		X			B		X			102		F	S/D	64
3C-186	OFD-121A-3.8	Hotwell Emergency Makeup #1 Control Inlet	M		M			B					NR		F	3 Mo	
3C-391	OFD-121A-3.8	TDEFDWP Suction from Hotwell	P		X			B		X			102		F	S/D	65
3C-568	OFD-121A-3.8	MDEFWPs Suction from Hotwell Check	C				X	C							F	RF	76
3C-573	OFD-121A-3.8	MDEFWPs Suction from UST	M		M			B					NR		F	S/D	86
3CA-27	OFD-127B-3.2	BA Supply to CFT "3A"	M	J	P			A									37
3CA-29	OFD-127B-3.2	BA Supply to CFT "3B"	M	J	P			A									37
3CA-39	OFD-110A-3.8	Caustic to LP Suction	M		M			B		X			NR		F	3 Mo	
3CA-62	OFD-110A-3.8	Caustic to LP Suction	M		M			B		X			NR		F	3 Mo	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F U E L I N G	S T R O K E S T I M E C	P A R T I S A L O R E	F R E Q U E N C Y	C O M M E N T S
3CC-7	OFD-144A-3.2	CC from RCP	P	J	S			A		X		45	F	S/D	40	
3CC-8	OFD-144A-3.2	CC from RCP	P	J	S			A		X		18	F	S/D	41	
3CC-20	OFD-144A-3.2	CC to RCP	C	J			X	A/C						RF	42	
3CC-21	OFD-144A-3.2	Supply Hdr Penet 3 Drain	M	X				A						RF		
3CC-22	OFD-144A-3.2	Supply Hdr Penet 3 Vent	M	X				A						RF		
3CC-24	OFD-144A-3.2	CC to RCP	C	J			X	A/C						RF	42	
3CC-54	OFD-144A-3.2	Return Penet 54 Drain	M	X				A						RF		
3CC-55	OFD-144A-3.2	Return Penet 54 Vent	M	X				A						RF		
3CC-56	OFD-144A-3.2	Return Penet 54 PX	M	X				A						RF		
3CC-76	OFD-144A-3.3	CC to CRD Service Structure	C	J			X	A/C						RF	42	
3CC-77	OFD-144A-3.3	CC to CRD Service Structure	C	J			X	A/C						RF	42	
3CC-80	OFD-144A-3.3	CRD Hdr Penet 44 Vent	M	X				A						RF		
3CC-82	OFD-144A-3.3	CRD Hdr Penet 44 Drain	M	X				A						RF		

[illegible]

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E I S T E C	P A R T I C I P A N T O K E R	F R E Q U E N C Y	C O M M E N T S
3CF-4	OFD-102A-3.3	"B" CFT Isolation Valve	M	J	P			A								16
3CF-5	OFD-102A-3.3	"A" CFT Vent	P		P			B	S							
3CF-6	OFD-102A-3.3	"B" CFT Vent	P		P			B	S							
3CF-7	OFD-102A-3.3	CF Bleed to Waste Holdup Tank	M	J	P			A								16
3CF-11	OFD-102A-3.3	"A" CFT Disch. Check Valve	C	X			X	A/C					P		S/D	17
3CF-12	OFD-102A-3.3	"A" CFT Disch. Check Valve	C	P			X	A/C					P		S/D	17
3CF-13	OFD-102A-3.3	"B" CFT Disch. Check Valve	C	X			X	A/C					P		S/D	17
3CF-14	OFD-102A-3.3	"B" CFT Disch. Check Valve	C	P			X	A/C					P		S/D	17
3CF-19	OFD-102A-3.3	Sample Block	M	J	P			A								16
3CF-34	OFD-102A-3.3	Tank Vent to Waste Gas Block	M					A								91
3CF-35	OFD-102A-3.3	CF Vent to Waste Gas Filter Block	M					A								91
3CF-36	OFD-102A-3.3	CF Vent to Vent Header Block	M					A								91
3CS-5	OFD-107A-3.2	QT RB Isolation	P	J	S			A		X		20	F		3 Mo	26

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	T E S T	E X C I S E	S A F E T Y	V A L V E	C H E C K	V A L V E	C A T E G O R Y	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E	L I M I T S	T I M E	P A R T I C L E	F U L L T R O K E	F R E Q U E N C Y	C O M M E N T S
3CS-6	OFD-107A-3.2		QT RB Isolation	P	J	S						A				X		5		F			3 Mo	
3CS-11	OFD-107A-3.1		QT Recirc. Check Valve	C	J					X		A/C											RF	27
3CS-12	OFD-107A-3.1		QT Recirc. Check Valve	C	J					X		A/C											RF	27
3CS-17	OFD-107A-3.1		QT Return Penet 38 Drain	M	X							A											RF	
3CS-18	OFD-107A-3.1		QT Return Penet 38 Vent	M	X							A											RF	
3CS-23	OFD-107A-3.2		Comp Drain Hdr Penet 29 Drain	M	X							A											RF	
3CS-24	OFD-107A-3.2		Comp Drain Hdr Penet 29 Vent	M	X							A											RF	
3CS-25	OFD-107A-3.2		Comp Drain Hdr Penet 29 PX	M	X							A											RF	
3CS-64	OFD-106A-3.2		CBAT Outlet	P		X						B				X		10		F			3 Mo	
3CS-73	OFD-101A-3.2		CBAT to LDST	C						X		C									F		3 Mo	75
3DW-59	OFD-106E-3.1		DW to RB	M	J	P						A											RF	54
3DW-60	OFD-106E-3.1		DW to RB	M	J	P						A											RF	54
3DW-278	OFD-106E-3.2		DW Flush Supply to PASP	P		X						B						†		F			3 Mo	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F Y I N G	A T T E N T I O N	S T R O K E S	L I M I T S	P A R T I C I P A N T	F U L L T R O C K E R	F R E Q U E N C Y	C O M M E N T S
3DW-279	OFD-106E-3.2	DW Check to Post Accident Sample Panel (PASP)	C				X	C							F		3 Mo	
3DW-280	OFD-107B-3.2	DW Flush for RB Normal Sump Pump	P		X			B					†		F		3 Mo	
3DW-281	OFD-110A-3.4	PASP Cooling Water Supply	M		M			B					NR		F		3 Mo	
3DW-282	OFD-110A-3.4	PASP Cooling Water Supply	M		M			B					NR		F		3 Mo	
3FDW-31	OFD-121B-3.3	"A" OTSG Main Block	P		X			B		X			226		F		S/D	71
3FDW-32	OFD-121B-3.3	"A" OTSG Main Flow Control Valve	P		X			B		X			40		F		S/D	71
3FDW-33	OFD-121B-3.3	EFDW to OTSG "A"	P		X			B		X			66		F		S/D	30
3FDW-35	OFD-121B-3.3	EFDW to OTSG "A"	P		X			B		X			25		F		S/D	30
3FDW-36	OFD-121B-3.3	EFDW to OTSG "A"	P		X			B		X			48		F		S/D	30
3FDW-38	OFD-121B-3.3	EFDW to OTSG "A"	P		X			B		X			42		F		S/D	31
3FDW-39	OFD-121D-3.1	EFDW to OTSG "A" Check Valve	C				X	C							F		RF	32
3FDW-40	OFD-121B-3.3	"B" OTSG Main Block	P		X			B		X			226		F		S/D	71

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E I S T S	P A R T I C I P A N T I S T S	F R E Q U E N C Y	C O M M E N T S
3FDW-41	OFD-121B-3.3	"B" OTSG Main Flow Control Valve	P		X			B		X		40	F	S/D	71	
3FDW-42	OFD-121B-3.3	EFDW to OTSG "B"	P		X			B		X		60	F	S/D	30	
3FDW-44	OFD-121B-3.3	EFDW to OTSG "B"	P		X			B		X		25	F	S/D	30	
3FDW-45	OFD-121B-3.3	EFDW to OTSG "B"	P		X			B		X		48	F	S/D	30	
3FDW-47	OFD-121B-3.3	EFDW to OTSG "B"	P		X			B		X		45	F	S/D	31	
3FDW-48	OFD-121D-3.1	EFDW to OTSG "B" Check	C				X	C					F	RF	32	
3FDW-93	OFD-121D-3.1	Emerg. FDWP Disch. Line 3A Check	C				X	C					F	RF	80	
3FDW-94	OFD-121D-3.1	Emerg. FDWP Disch. Line 3A	M	M				B				NR	F	3 Mo		
3FDW-95	OFD-121D-3.1	Emerg. FDWP Disch. Line 3B	C				X	C					F	RF	80	
3FDW-96	OFD-121D-3.1	Emerg. FDWP Disch. Line B	M	M				B				NR	F	3 Mo		
3FDW-99	OFD-121D-3.1	Emerg. FDW Line "A" Check	C				X	C					F	RF	81	
3FDW-101	OFD-121D-3.1	Emerg. FDW Line "B" Check	C				X	C					F	RF	81	
3FDW-103	OFD-121B-3.5	S/G "3A" Shell Drain Block	P	J	P			A								33
3FDW-104	OFD-123B-3.5	S/G "3B" Shell Drain Block	P	J	P			A								33

VALVE NAME	DRAWING NO.	VALVE NAME	TYPE	LEAK	TEST	RCISE	TEST	VALVE	VALVE	CATE GOR Y	OPEN /SHUT	OSITION	IRREFUE LING	LOCKE ST MEC	PARL TIS AL ORE	FUE QUEN CY	COM MEN TS
3FDW-105	OFD-110A-3.1	OTSG "A" Sample	P	J	S					A			X	30	F	3 Mo	
3FDW-106	OFD-110A-3.1	OTSG "A" Sample	P	J	S					A			X	10	F	3 Mo	
3FDW-107	OFD-110A-3.1	OTSG "B" Sample	P	J	S					A			X	30	F	3 Mo	
3FDW-108	OFD-110A-3.1	OTSG "B" Sample	P	J	S					A			X	10	F	3 Mo	
3FDW-117	OFD-110A-3.1	"3A" OTSG Sample Penet 2 Vent	M	X						A						RF	
3FDW-118	OFD-110A-3.1	"3A" OTSG Sample Penet 2 Drain	M	X						A						RF	
3FDW-122	OFD-110A-3.1	"3B" OTSG Sample Penet 58 Vent	M	X						A						RF	
3FDW-123	OFD-110A-3.1	"3B" OTSG Sample Penet 58 Drain	M	X						A						RF	
3FDW-232	OFD-121D-3.1	OTSG "A" Emergency Hdr. Check	C					X	C						F	RF	32
3FDW-233	OFD-121D-3.1	OTSG "B" Emergency Hdr. Check	C					X	C						F	RF	32
3FDW-311	OFD-121D-3.1	EFDW to OTSG "A"	C					X	C						F	RF	1
3FDW-312	OFD-121D-3.1	EFDW to OTSG "B"	C					X	C						F	RF	1
3FDW-313	OFD-121D-3.1	EFWP Line "3A2" Disch. to SG "3A" X-Tie	M		M				B					NR	F	3 Mo	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E T	S A F E T Y V A L V E T	C H E C K V A L V E T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R I E F U E L I N G	S T R O K E I S T S T I M E C	F U L L T I S A L R O K E R	F R E Q U E N C Y	C O M M E N T S
3FDW-314	OFD-121D-3.1	EFPW Line "3B2" Disch. to SG "3B" X-Tie	M		M			B					NR	F		3 Mo
3FDW-315	OFD-121D-3.1	EFDW to OTSG "A"	P		X			B			X		45	F		3 Mo
3FDW-316	OFD-121D-3.1	EFDW to OTSG "B"	P		X			B			X		50	F		3 Mo
3FDW-317	OFD-121D-3.1	EFDW to OTSG "B"	C				X	C						F	RF	1
3FDW-318	OFD-121D-3.1	EFDW to OTSG "A"	C				X	C						F	RF	1
3FDW-345	OFD-121D-3.1	"3A" SG Emergency Hdr. Check	C				X	C						F	RF	2
3FDW-346	OFD-121D-3.1	"3B" SG Emergency Hdr. Check	C				X	C						F	RF	2
3FDW-368	OFD-121D-3.1	TDEFWP Disch. to SG "3A" Block (Emerg-Emerg Hdr)	P		X			B			X			F		3 Mo
3FDW-369	OFD-121D-3.1	TDEFWP Disch. to SG "3B" Block (Emerg-Emerg Hdr)	P		X			B			X			F		3 Mo
3FDW-370	OFD-121D-3.1	MDEFWP "A" Min. Flow Recirc	C				X	C						F	RF	69
3FDW-372	OFD-121D-3.1	MDEFWP "3A" Disch. to SG "3A" (Emerg-Emerg Hdr)	P		X			B			X			F		3 Mo
3FDW-373	OFD-121D-3.1	MDEFW to OTSG "A"	C				X	C						F	RF	1

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V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S	F U L L T A T R O K E	R E Q U E S T Y	C O M M E N T S
3FDW-374	OFD-121D-3.1			MDEFWP "3A" Disch. to SC "3A" (Nor-Emerg Hdr)	P		X			B		X			F		3 Mo
3FDW-375	OFD-121D-3.1			MDEFWP "3A" Disch. Check to SG "3A" (Nor-Emerg Hdr)	C				X	C					F		RF 82
3FDW-380	OFD-121D-3.1			MDEFWP "B" Min. Flow Recirc	C				X	C					F		RF 69
3FDW-382	OFD-121D-3.1			MDEFWP "3B" Disch. to SG "3B" (Emerg-Emerg Hdr)	P		X			B		X			F		3 Mo
3FDW-383	OFD-121D-3.1			MDEFW to OTSG "B"	C				X	C					F		RF 1
3FDW-384	OFD-121D-3.1			MDEFWP "3B" Disch. to SG "3B" (Nor-Emerg Hdr)	P		X			B					F		3 Mo
3FDW-385	OFD-121D-3.1			MDEFWP "3B" Disch. Check to SG "3B" (Nor-Emerg Hdr)	C				X	C					F		RF 82
3FDW-442	OFD-121D-3.1			EFDW to "B" S/G Outside Check	C				X	C					F		RF 2
3FW-64	OFD-106E-3.1			FW to RB	M	J	P			A						RF	53
3FW-65	OFD-106E-3.1			FW to RB	M	J	P			A						RF	54

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	O P E N /	P O S I T I O N	V E R I F Y	A T T E N T I O N	S T R O K E	L I M I T S	P A R T I A L	F U L L	F R E Q U E N C Y	C O M M E N T S
3FW-66	OFD-106E-3.1	RB FW Header Drain (46)			M	X			A									RF	
3GWD-10.	OFD-107A-3.1	QT Vent Penet 18 Vent			M	X			A									RF	
3GWD-11	OFD-107A-3.1	QT Vent Penet 18 Vent			M	X			A									RF	
3GWD-12	OFD-107A-3.1	QT Vent			P	J	S		A			X		20		F		3 Mo	26
3GWD-13	OFD-107A-3.1	QT Vent			P	J	S		A			X		15		F		3 Mo	
3HP-3	OFD-101A-3.1	"A" LD Cooler Outlet			P	J	S		A			X		40		F		3 Mo	
3HP-4	OFD-101A-3.1	"B" LD Cooler Outlet			P	J	S		A			X		40		F		3 Mo	
3HP-5	OFD-101A-3.1	LD Cooler Outlet			P	J	S		A			X		4		F		S/D	8
3HP-16	OFD-101A-3.2	Makeup to LDST			P		X		B			X		5		F		3 Mo	
3HP-20	OFD-101A-3.1	RC Pump Seal Return			P	J	S		A			X		38		F		S/D	9
3HP-21	OFD-101A-3.1	RC Pump Seal Return			P	J	S		A			X		4		F		S/D	10
3HP-24	OFD-101A-3.3	"A" HPI Pump Suct. from BWST			P		S		B			X		14		F		3 Mo	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N I N O N G	V E R I F I C A T I O N T I L I N G	A T T E N T I O N T I L I N G	S T R O K E S T I M E C	F U L L T R O C K E R	F R E Q U E N C Y	C O M M E N T S
3HP-25	OFD-101A-3.3	"C" HPI Pump Suct. from BWST	P		S			B			X		14	F	3 Mo	
3HP-26	OFD-101B-3.4	"A" Loop Injection	P		S			B			X		14	F	S/D	11
3HP-27	OFD-101B-3.4	"B" Loop Injection	P		S			B			X		14	F	3 Mo	
3HP-36	OFD-101A-3.1	Letdown Penet 6 Vent	M	X				A							RF	
3HP-37	OFD-101A-3.1	Letdown Penet 6 Drain	M	X				A							RF	
3HP-68	OFD-101A-3.1	Seal Return Penet 7 Vent	M	X				A							RF	
3HP-69	OFD-101A-3.1	Seal Return Penet 7 Drain	M	X				A							RF	
3HP-101	OFD-101A-3.3	"A" HPI Pump Suct. Check Valve	C				X	C						P	RF	6
3HP-102	OFD-101A-3.3	"C" HPI Pump Suct. Check Valve	C				X	C						P	RF	6
3HP-105	OFD-101A-3.3	"A" HPI Disch. Check Valve	C				X	C						P/F	3 Mo	7
3HP-109	OFD-101A-3.3	"B" HPI Disch. Check Valve	C				X	C						P/F	3 Mo	7
3HP-113	OFD-101A-3.3	"C" HPI Disch. Check Valve	C				X	C						P/F	3 Mo	7
3HP-120	OFD-101B-3.4	"A" Loop Injection	P		X			B			X		25	F	S/D	51
3HP-126	OFD-101B-3.4	"A" Loop Check Valve	C				X	C						F	S/D	12

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F Y I N G	A T T E N T I O N	S T R O K E S	L I M I T S	P A R T I A L O K E	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
3HP-211	OFD-101A-3.4	RCP "A1" Seal Supply Penet 23 Drain	M	X						A									RF	
3HP-216	OFD-101A-3.4	RCP "B2" Seal Supply Penet 10 Vent	M	X						A									RF	
3HP-218	OFD-101A-3.4	RCP "B1" Seal Supply Penet 10 Drain	M	X						A									RF	
3HP-223	OFD-101A-3.4	RCP "B1" Seal Supply Penet 10 Vent	M	X						A									RF	
3HP-225	OFD-101A-3.4	RCP "B1" Seal Supply Penet 10 Drain	M	X						A									RF	
3HP-283	OFD-101B-3.4	Seal Supply to RCP "A1"	C	J					X	A/C							F		RF	61
3HP-284	OFD-101B-3.4	Seal Supply to RCP "A2"	C	J					X	A/C							F		RF	61
3HP-285	OFD-101B-3.4	Seal Supply to RCP "B1"	C	J					X	A/C							F		RF	61
3HP-286	OFD-101B-3.4	Seal Supply to RCP "B2"	C	J					X	A/C							F		RF	61
3HP-409	OFD-101A-3.4	"B" Loop HPI X-Connect	P		X					B		X			10		F		S/D	46
3HP-410	OFD-101A-3.4	"A" Loop HPI X-Connect	P		X					B		X			10		F		S/D	46
3HPSW-184	OFD-124A-3.3	LPSW to TDEFWP Oil Coolers	P		X					B		X			10		F		3 Mo	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C I S E T	S A F E T Y V A L V E T	C H E C K V A L V E T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N D	V E T I F I C A T I O N G	S T R O K E S T I M E C	L I M I T S I S M E C	P A R T I C I P A N T O K R E	F U L L T R O C K Y	F R E Q U E N C Y	C O M M E N T S
3HPSW-189	OFD-124C-1.2	TDEFDWP Cooling Water Cont. Vlv Inlet	M		P			B	0								
3HPSW-191	OFD-124C-1.2	Emerg. FWPT Cooling Jacket	C				X	C						F		3 Mo	
3HPSW-192	OFD-124C-1.2	TDEFDWP Cooling Water Cont. Vlv Outlet	M		P			B	0								
3HPSW-193	OFD-124A-1.3	Emerg. FWPT Cooling Jacket	C				X	C						F		3 Mo	
3HPSW-248	OFD-124C-1.3	Emerg. FWPT Cooling Jacket	C		P			B	0								
3HPSW-556	OFD-124C-3.3	HPSW Emer Cooling Press Reg Valve	C				X	C						F		S/D	77
3IA-90	PO-149X	Penetration Isolation	M	J	P			A									43
3IA-91	PO-149X	Penetration Isolation	M	J	P			A									43
3IA-2423	OFD-110A-3.4	PASP Air Supply	M		M			B				NR				3 Mo	
3LP-1	OFD-102A-3.1	DH Valve	P		X			B		X		74		F		S/D	18
3LP-2	OFD-102A-3.1	DH RB Isolation	P		X			B		X		72		F		S/D	18

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E S	F U L L S T R O K E	R E Q U E N C Y	C O M M E N T S
3LP-7	OFD-102A-3.1	LPI Suction X-Connect	P	X					B		X			120	F	3 Mo	
3LP-9	OFD-102A-3.2	LPI Disch. X-Connect	P	X					B		X			110	F	3 Mo	
3LP-10	OFD-102A-3.2	LPI Disch. X-Connect	P	X					B		X			100	F	3 Mo	
3LP-12	OFD-102A-3.2	LPI "A" Cooler Outlet	P	X					B		X			125	F	3 Mo	
3LP-14	OFD-102A-3.2	LPI "B" Cooler Outlet	P	X					B		X			125	F	3 Mo	
3LP-15	OFD-102A-3.2	LPI "A" Header to HPI	P	X					B		X			70	F	3 Mo	
3LP-16	OFD-102A-3.2	LPI "B" Header to HPI	P	X					B		X			70	F	3 Mo	
3LP-17	OFD-102A-3.2	LPI "A" RB Isolation Valve	P	S					B		X			15	F	S/D	47
3LP-18	OFD-102A-3.2	LPI "B" RB Isolation Valve	P	S					B		X			15	F	S/D	47
3LP-19	OFD-102A-3.1	RB Emergency Sump	P	X					B		X			100	F	3 Mo	
3LP-20	OFD-102A-3.1	RB Emergency Sump	P	X					B		X			100	F	3 Mo	
3LP-21	OFD-102A-3.1	BWST to LPI Suction	P	S					B		X			15	F	3 Mo	
3LP-22	OFD-102A-3.1	BWST to LPI Suction	P	S					B		X			15	F	3 Mo	
3LP-25	OFD-102A-3.1	RC Return Header Relief Valve	C				X		C								RF

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F L U E N G	S T R O K E S T I M E C	F U L L T I S T R O K E	F R E Q U E N C Y	C O M M E N T S
3LP-3	OFD-102A-3.1	DH RB Isolation	P		X		B		X		85		F	3 Mo	
3LP-6	OFD-102A-3.1	LPI Suction X-Connect	P		X		B		X		120		F	3 Mo	
3LP-7	OFD-102A-3.1	LPI Suction X-Connect	P		X		B		X		120		F	3 Mo	
3LP-9	OFD-102A-3.2	LPI Disch. X-Connect	P		X		B		X		110		F	3 Mo	
3LP-10	OFD-102A-3.2	LPI Disch. X-Connect	P		X		B		X		100		F	3 Mo	
3LP-12	OFD-102A-3.2	LPI "A" Cooler Outlet	P		X		B		X		125		F	3 Mo	
3LP-14	OFD-102A-3.2	LPI "B" Cooler Outlet	P		X		B		X		125		F	3 Mo	
3LP-15	OFD-102A-3.2	LPI "A" Header to HPI	P		X		B		X		70		F	3 Mo	
3LP-16	OFD-102A-3.2	LPI "B" Header to HPI	P		X		B		X		70		F	3 Mo	
3LP-17	OFD-102A-3.2	LPI "A" RB Isolation Valve	P		S		B		X		15		F	S/D	47
3LP-18	OFD-102A-3.2	LPI "B" RB Isolation Valve	P		S		B		X		15		F	S/D	47
3LP-19	OFD-102A-3.1	RB Emergency Sump	P		X		B		X		100		F	3 Mo	
3LP-20	OFD-102A-3.1	RB Emergency Sump	P		X		B		X		100		F	3 Mo	
3LP-21	OFD-102A-3.1	BWST to LPI Suction	P		S		B		X		15		F	3 Mo	

V A L V E	D R A W I N G	N O.	N O.	VALVE NAME	T Y P E	L E A K	E X C I S E	S A F E T Y	C H E C K	L O C K	P O S I T I O N	V A L V E	S T R I K E	F U L L	F R E Q U E N C Y	C O M M E N T S
3LP-22	OFD-102A-3.1	BWST to LPI Suction	P	S					B		X	15	F	3 Mo		
3LP-25	OFD-102A-3.1	RC Return Header Relief Valve	C			X		C							RF	
3LP-28	OFD-102A-3.1	BWST Isolation	M	P					B	0						
3LP-29	OFD-102A-3.1	BWST to "A" LPI Header	C					X	C				P	3 Mo	45	
3LP-30	OFD-102A-3.1	BWST to "B" LPI Header	C					X	C				P	3 Mo	45	
3LP-31	OFD-102A-3.2	"A" LPI Pump Discharge	C					X	C				P/F	3 Mo	68	
3LP-33	OFD-102A-3.2	"B" LPI Pump Discharge	C					X	C				F	3 Mo		
3LP-46	OFD-100A-3.2	Auxiliary Spray Check Valve	C	X					A/C						S/D	62
3LP-47	OFD-102A-3.2	"A" LPI Header Check Valve	C	P				X	A/C				F	S/D	19	
3LP-48	OFD-102A-3.2	"B" LPI Header Check Valve	C	P				X	A/C				F	S/D	19	
3LP-51	OFD-102A-3.1	Caustic to LP Suction	M	M					B			NR	F	3 Mo		
3LP-55	OFD-101A-3.3	"A" Cooler Out. to HP Pump Suction	C					X	C				P	RF	70	
3LP-57	OFD-101A-3.3	"B" Cooler Out. to HP Pump Suction	C					X	C				P	RF	70	
3LP-65	OFD-102A-3.1	Drain to D ₂ from Loop "B"	M	M					B			NR	F	3 Mo		

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V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K T E S T	E X E R C I S E T E S T	S A F E T Y V A L V E T E S T	C H E C K V A L V E T E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N I N D	V E R I F I C A T I O N N G	A R R E F E L I N G	S T R O K E I M I T S T I M E C	F U L L P A R T I S T R O K E	F R E Q U E N C Y	C O M M E N T S
3LP-103	OFD-102A-3.1	Boron Dilution	P		X			B			X		15	F	S/D	20
3LP-104	OFD-102A-3.1	Boron Dilution	P		X			B			X		10	F	S/D	20
3LP-108	OFD-102A-3.1	Boron Dilution	M		M			B					NR	F	3 Mo	
3LP-109	OFD-102A-3.1	Boron Dilution	M		M			B					NR	F	3 Mo	
3LP-120	OFD-102A-3.1	PASP Return Check Valve	C				X	C						F	3 Mo	
3LP-121	OFD-102A-3.1	Post Accident Sample Return	P		X			B					†	F	3 Mo	
3LPSW-4	OFD-124B-3.1	DH Cooler "3A" Outlet	P		S			B			X		100	F	3 Mo	
3LPSW-5	OFD-124B-3.1	DH Cooler "3B" Outlet	P		S			B			X		100	F	3 Mo	
3LPSW-6	OFD-124B-3.4	LPSW to RCP Oil Coolers	P		S			B			X		66	F	S/D	52
3LPSW-7	OFD-124B-3.4	LPSW to RCP "3A1" Oil Coolers	P		X			B			X		30	F	S/D	55
3LPSW-8	OFD-124B-3.4	LPSW from RCP "3A1" Oil Coolers	P		X			B			X		30	F	S/D	55
3LPSW-9	OFD-124B-3.4	LPSW to RCP "3B1" Oil Coolers	P		X			B			X		30	F	S/D	55
3LPSW-10	OFD-124B-3.4	LPSW from RCP "3B1" Oil Coolers	P		X			B			X		30	F	S/D	55

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E F E R E N C E	S T R O K E S T I M E	L I M I T S I N M E C	F U L L T I M E O K E	F R E Q U E N C Y	C O M M E N T S
3LPSW-11	OFD-124B-3.4	LPSW to RCP "3B2" Oil Coolers	P		X			B			X		30		F	S/D	55
3LPSW-12	OFD-124B-3.4	LPSW from RCP "3B2" Oil Coolers	P		X			B			X		30		F	S/D	55
3LPSW-13	OFD-124B-3.4	LPSW to RCP "3A2" Oil Coolers	P		X			B			X		30		F	S/D	55
3LPSW-14	OFD-124B-3.4	LPSW from RCP "3A2" Oil Coolers	P		X			B			X		30		F	S/D	55
3LPSW-15	OFD-124B-3.4	LPSW from RCP Oil Coolers	P	J	S			A			X		72		F	S/D	52
3LPSW-16	OFD-124B-3.2	LPSW to RBCU "3A"	P		X			B			X		57		F	3 Mo	
3LPSW-18	OFD-124B-3.2	LPSW from RBCU "3A"	P		S			B			X		38		F	3 Mo	
3LPSW-19	OFD-124B-3.2	LPSW to RBCU "3B"	P		X			B			X		57		F	3 Mo	
3LPSW-21	OFD-124B-3.2	LPSW from RBCU "3B"	P		S			B			X		38		F	3 Mo	
3LPSW-22	OFD-124B-3.2	LPSW to RBCU "3C"	P		X			B			X		57		F	3 Mo	
3LPSW-24	OFD-124B-3.2	LPSW from RBCU "3C"	P		X			B			X		38		F	3 Mo	
3LPSW-75	OFD-124B-3.1	DH Cooler "3A" Outlet C.V.	C				X	C							F	3 Mo	
3LPSW-76	OFD-124B-3.1	DH Coolers "3B" Outlet C.V.	C				X	C							F	3 Mo	
3LPSW-108	OFD-124B-3.1	RBCU Outlet	M		P			B	0								

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E R E F U E L I N G	S T R O K E S T I S M E C	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
3LPSW-137	OFD-124A-3.3	LPSW to Unit 3 TEDFDW Cooling Jacket P			X			B		X		NR	F	3 Mo	
3LPSW-138	OFD-124A-3.3	Bypass around Vlv to Cool. Jacket P			X			B		X		10	F	3 Mo	
3LPSW-144	OFD-124B-3.4	LPSW Return Penet 22 Test Drain M	X					A						RF	
3LPSW-145	OFD-124B-3.4	LPSW Return Penet 22 Test Vent M	X					A						RF	
3LPSW-146	OFD-124B-3.4	LPSW Return Penet 22 Test Gauge M	X					A						RF	
3LPSW-404	OFD-124B-3.1	LPSW DH Cooler Outlet P			X			B		X		100	F	3 Mo	
3LPSW-405	OFD-124B-3.1	LPSW DH Cooler Outlet P			X			B		X		100	F	3 Mo	
3LPSW-516	OFD-124A-3.3	Auto Valve from "A" MDEFDWP Motor P			X			B		X		†	F	3 Mo	
3LPSW-525	OFD-124A-3.1	Auto Valve from "B" MDEFDWP Motor P			X			B		X		†	F	3 Mo	
3LPSW-561	OFD-124B-3.4	RCP "3B1/3B2" M Cool Rtn Vent (22) M	X					A						RF	
3LPSW-565	OFD-124B-3.2	RB Aux. Cooler Inlet P			S			B		X		55	F	3 Mo	
3LPSW-566	OFD-124B-3.2	RBCU Inlet P			S			B		X		55	F	3 Mo	
3LPSW-666	OFD-124B-3.4	RCP "3A1" M Cool Rtn Drn (22) M	X					A						RF	
3LPSW-667	OFD-124B-3.4	Unit 3 RCP Return Line Drain M	X					A						RF	

V A L V E	D R A W I N G	N O.		S A F E T Y	C H E C K	L O C K	P O S I T I O N	V E R I F I C A T I O N	A T T R E F U E L I N G	S T R O K E S	F U L L S T R O K E	R E Q U E S T Y	C O M M E N T S
		O.	VALVE NAME	T Y P E	E X E R C I S E	V A L V E	C A T E G O R Y	O P E N / S H U T	I N D I C A T O R	T I M E	O R I G I N A L	F RE QU EN CY	
3LPWS-687	OFD-124B-3.3		Unit 3 TDEFWP Cooling Water Check	C		X	C				F	3 Mo	
3LRT-24	O-2472		Leak Rate Test	H	J	P	A					RF	44
3LRT-25	O-2472		Leak Rate Test	M	J	P	A					RF	44
3LRT-36	O-2472		Leak Rate Test	M	J	P	A					RF	44
3LRT-37	O-2472		Leak Rate Test	M	J	P	A					RF	44
3LRT-38	O-2472		Leak Rate Test	M	J	P	A					RF	44
3LRT-39	O-2472		Leak Rate Test	M	J	P	A					RF	44
3LWD-1	OFD-107B-3.1		Normal Sump Suction	P	J	S	A		X	15	F	3 Mo	28
3LWD-2	OFD-107B-3.1		Normal Sump Suction	P	J	S	A		X	15	F	3 Mo	
3LWD-27	OFD-107B-3.1		RB Normal Sump Penet 5 Drain	M	X		A					RF	
3LWD-28	OFD-107B-3.1		RB Normal Sump Penet 5 Vent	M	X		A					RF	
3LWD-29	OFD-107B-3.1		RB Normal Sump Penet 5 PX	M	X		A					RF	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X C E L L E N C Y	S A F E T Y	C H E C K	L O C K	O P E N /	P O S I T I O N	V A L V E	A R R E S T E D	S T R I K E S	P U L S E	F R E Q U E N C Y	C O M M E N T S
3LWD-99	OFD-107D-3.2	Emerg. Sump Drain Pene. (40) Block	M					A								90
3LWD-103	OFD-107D-3.2	Emerg. Sump Drain Pene. (40) Block	M					A								90
3LWD-1026	OFD-107B-3.2	RB Norm. Sump Sample Pump Suction	P		X			B					†	F	3 Mo	
3LWD-1027	OFD-107B-3.2	RB Norm. Sump Sample Pump Disc. Check	C				X	C						F	3 Mo	
3LWD-1028	OFD-107B-3.2	RB Norm. Sump Sample Pump Discharge	P		X			B					†	F	3 Mo	
3MS-1	OFD-122A-3.1	Main Steam Relief Valve	R			X		C						F	RF	72
3MS-2	OFD-122A-3.1	Main Steam Relief Valve	R			X		C						F	RF	72
3MS-3	OFD-122A-3.1	Main Steam Relief Valve	R			X		C						F	RF	72
3MS-4	OFD-122A-3.1	Main Steam Relief Valve	R			X		C						F	RF	72
3MS-5	OFD-122A-3.1	Main Steam Relief Valve	R			X		C						F	RF	72
3MS-6	OFD-122A-3.1	Main Steam Relief Valve	R			X		C						F	RF	72
3MS-7	OFD-122A-3.1	Main Steam Relief Valve	R			X		C						F	RF	72

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K T E S T	E X E R C I S E T E S T	S A F E T Y V A L V E T E S T	C H E C K V A L V E T E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N I N D O N	V E R I F I C A T I O N I N G	A R R E F U E L I N G	S T R O K E S T I M E C	L I M I T S I S E C	P A R T I A L O R E	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
3MS-8	OFD-122A-3.1	Main Steam Relief Valve	R			X		C							F	RF	72	
3MS-9	OFD-122A-3.1	Main Steam Relief Valve	R			X		C							F	RF	72	
3MS-10	OFD-122A-3.1	Main Steam Relief Valve	R			X		C							F	RF	72	
3MS-11	OFD-122A-3.1	Main Steam Relief Valve	R			X		C							F	RF	72	
3MS-12	OFD-122A-3.1	Main Steam Relief Valve	R			X		C							F	RF	72	
3MS-13	OFD-122A-3.1	Main Steam Relief Valve	R			X		C							F	RF	72	
3MS-14	OFD-122A-3.1	Main Steam Relief Valve	R			X		C							F	RF	72	
3MS-15	OFD-122A-3.1	Main Steam Relief Valve	R			X		C							F	RF	72	
3MS-16	OFD-122A-3.1	Main Steam Relief Valve	R			X		C							F	RF	72	
3MS-17	OFD-122A-3.2	Steam Header "A" Turbine Bypass	P		X			B		X		120		F	S/D	67		
3MS-19	OFD-122A-3.2	Turbine Bypass Control "A"	P		X			B		X		38		F	S/D	67		
3MS-22	OFD-122A-3.2	Turbine Bypass Control "B"	P		X			B		X		38		F	S/D	67		
3MS-24	OFD-122A-3.2	MS Line "A" to Aux. Steam	P		X			B		X		72		F	3 Mo			
3MS-26	OFD-122A-3.2	Steam Header "B" Turbine Bypass	P		X			B		X		120		F	S/D	67		

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S S	S A F E T Y	C H E C K	L O C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A R R E R F E L D I N G	S T R O K E S	L I M I T S	P U L L R E T A I N E R	F R E Q U E N C Y	C O M M E N T S
3MS-28	OFD-122A-3.2		Turbine Bypass Control "C"	P		X			B		X		38	F	S/D	67		
3MS-31	OFD-122A-3.2		Turbine Bypass Control "D"	P		X			B		X		38	F	S/D	67		
3MS-33	OFD-122A-3.2		MS Line "B" to Aux. Steam	P		X			B		X		72	F	3 Mo			
3MS-82	OFD-122A-3.4		MS Line "A" to EFDW Turbine	P		X			B		X		72	F	3 Mo			
3MS-83	OFD-122A-3.4		MS Line "A" to EFDW Pump Turbine Check	C				X	C					F	3 Mo			
3MS-84	OFD-122A-3.4		MS Line "B" to EFDW Turbine	P		X			B		X		72	F	3 Mo			
3MS-85	OFD-122A-3.4		MS Line "B" to EFDW Turbine Check	C				X	C					F	3 Mo			
3MS-91	OFD-122A-3.4		MS to EFPT Supply Check	C				X	C					F	3 Mo			
3MS-93	OFD-122A-3.4		EFPT Supply Trip Valve	P		X			B		X		25	F	3 Mo			
3MS-102	OFD-122B-3.1		MS Stop Valve 4	P	X	X			A		X		1/15	P/F	3 Mo	34		
3MS-103	OFD-122B-3.1		MS Stop Valve 3	P	X	X			A		X		1/15	P/F	3 Mo	34		
3MS-104	OFD-122B-3.1		MS Stop Valve 2	P	X	X			A		X		1/15	P/F	3 Mo	34		
3MS-105	OFD-122B-3.1		MS Stop Valve 1	P	X	X			A		X		1/15	P/F	3 Mo	34		

V A L V E	D R A W I N G		L E A K	E X C I S E	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E M P T I O N	T R I E S	F U L L T I M E	R E Q U I R E D	C O M M E N T S
N. O.	N. O.	VALVE NAME	T Y P E	T E S T	T E S T	T E S T	T E S T	I N D	I N D	I N D	M E C	O R E	C Y	
3MS-153	OFD-122A-3.1	MS Line "A" Atmos Dump Blk Vlv Byp	M		M		B				NR	F	S/D	78
3MS-154	OFD-122A-3.1	MS Line "A" Atmos Dump Isol Vlv	M		M		B				NR	F	S/D	78
3MS-155	OFD-122A-3.1	MS Line "B" Atmos Dump Blk Vlv	M		M		B				NR	F	S/D	78
3MS-156	OFD-122A-3.1	MS Line "B" Atmos Dump Isol Vlv	M		M		B				NR	F	S/D	78
3MS-161	OFD-122A-3.1	MS Line "A" Atmos Dump Blk Vlv Byp	M		M		B				NR	F	S/D	78
3MS-162	OFD-122A-3.1	MS Line "A" Atmos Dump Control Vlv	M		M		B				NR	F	S/D	78
3MS-163	OFD-122A-3.1	- MS Line "B" Atmos Dump Blk Vlv Byp	M		M		B				NR	F	S/D	78
3MS-164	OFD-122A-3.1	MS Line "B" Atmos Dump Control Vlv	M		M		B				NR	F	S/D	78
3N-106	OFD-127B-3.2	LP N ₂ Heater Inlet	M	J	P		A							35
3N-107	OFD-127B-3.2	LP N ₂ Heater Inlet	M	J	P		A							35
3N-116	OFD-127B-3.2	Quench Tank Supply	M	J	P		A							35
3N-119	OFD-127B-3.2	S/B Pressurizer Sup Blk	M	J	P		A							35
3N-128	OFD-127B-3.2	CF Tank "A" Supply	M	J	P		A							36

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N I N D O N G	V E R I F I C A T I O N G	A T T E N T I O N G	S T R O K E S T I M E S	F U L L S T R O K E	P A R T I A L O R	F R E Q U E N C Y	C O M M E N T S
3N-130	OFD-127B-3.2	CF Tank "B" Supply	M	J	P			A									36
3PR-1	OFD-116A-3.1	RB Purge Outlet	P	J	S			A	S	X			8	F		S/D	4
3PR-2	OFD-116A-3.1	RB Purge Outlet	P	J	S			A	S	X			5	F		S/D	4
3PR-3	OFD-116A-3.1	RB Purge Control	P		S			B	S	X			5	F		S/D	4
3PR-4	OFD-116A-3.1	RB Purge Inlet	P		S			B	S	X			5	F		S/D	4
3PR-5	OFD-116A-3.1	RB Purge Inlet	P	J	S			A	S	X			5	F		S/D	4
3PR-6	OFD-116A-3.1	RB Purge Inlet	P	J	S			A	S	X			8	F		S/D	4
3PR-7	OFD-116C-3.1	RB Radiation Monitor	P	J	S			A		X			20	F		3 Mo	29
3PR-8	OFD-116C-3.1	RB Radiation Monitor	P	J	S			A		X			5	F		3 Mo	
3PR-9	OFD-116C-3.1	RB Radiation Monitor	P	J	S			A		X			15	F		3 Mo	29
3PR-10	OFD-116C-3.1	RB Radiation Monitor	P	J	S			A		X			5	F		3 Mo	
3PR-15	OFD-116B-3.1	PR Fan "A" Discharge	P		X			B		X			85	F		3 Mo	
3PR-19	OFD-116B-3.1	PR Fan "B" Discharge	P		X			B		X			85	F		3 Mo	

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	E X E R C I S E	S A F E T Y V A L V E	C H E C K V A L V E	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E S	L I M I T S	P A R T I A L O K E	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S
3PR-20	OFD-116B-3.1	PR Fan Suction Tie	P		X			B					NR		F		RF	74
3PR-23	OFD-116A-3.1	RB Sample Inlet Penet 60 Test	M	X				A									RF	
3PR-25	OFD-116A-3.1	RB Hydrogen Purge Penet 61	M	X				A									RF	
3PR-27	OFD-116A-3.1	RB Exhaust Penet 20 Test	M	X				A									RF	
3PR-29	OFD-116A-3.1	RB Supply Penet 19 Test	M	X				A									RF	
3PR-59	OFD-116C-3.1	H ₂ Recombiner Inlet	P	J	X			A		X			20		F		3 Mo	29
3PR-60	OFD-116C-3.1	H ₂ Recombiner Outlet	P	J	X			A		X			20		F		3 Mo	29
3PR-68	OFD-116C-3.1	Radiation Monitor Inlet Drain (60)	M	X				A									RF	
3PR-71	OFD-110A-3.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F		3 Mo	56
3PR-72	OFD-110A-3.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F		3 Mo	56
3PR-73	OFD-110A-3.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F		3 Mo	56
3PR-74	OFD-110A-3.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F		3 Mo	56
3PR-75	OFD-110A-3.3	H ₂ Analyzer "A" Sample Select	P		X			B					†		F		3 Mo	56
3PR-76	OFD-110A-3.3	H ₂ Analyzer "B" Sample Select	P		X			B					†		F		3 Mo	56

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V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K T E S T	E X E R C I S E T	S A F E T Y V A L V E T	C H E C K V A L V E T	L O C K O P E N / S H U T	P O S I T I O N I N O N G	V E R I F I C A T I O N T I L I N G	S T R O K E M I S T I S E C	F U L L R E T U R N O K E	F R E Q U E N C Y	C O M M E N T S		
3PR-77	OFD-110A-3.3	H ₂ Analyzer "B" Sample Select	P		X			B			†	F	3 Mo	56		
3PR-78	OFD-110A-3.3	H ₂ Analyzer "B" Sample Select	P		X			B			†	F	3 Mo	56		
3PR-79	OFD-110A-3.3	H ₂ Analyzer "B" Sample Select	P		X			B			†	F	3 Mo	56		
3PR-80	OFD-110A-3.3	H ₂ Analyzer "B" Sample Select	P		X			B			†	F	3 Mo	56		
3PR-81	OFD-110A-3.3	H ₂ Analyzer "A" Sample Select	P	J	F			A			2	F	3 Mo			
3PR-83	OFD-110A-3.3	Chan. "A" Supply to Hydrogen Anal./PASP	P		X			B			†	F	3 Mo			
3PR-84	OFD-110A-3.3	H ₂ Analyzer "A" Return	P	J	F			A			2	F	3 Mo			
3PR-86	OFD-110A-3.3	Chan. "B" Return from Hydrogen Anal./PASP	P		X			B			†	F	3 Mo			
3PR-87	OFD-110A-3.3	H ₂ Analyzer "B" Inlet	P	J	F			A			2	F	3 Mo			
3PR-89	OFD-110A-3.3	Chan. "B" Supply to Hydrogen Anal./PASP	P		X			B			†	F	3 Mo			
3PR-90	OFD-110A-3.3	H ₂ Analyzer "B" Return	P	J	F			A			2	F	3 Mo			
3PR-92	OFD-110A-3.3	Chan. "B" Return from Hydrogen Anal./PASP	P		X			B			†	F	3 Mo			

V A L V E N O.	D R A W I N G N O.	VALVE NAME	T Y P E	L E A K	T E S T	E X C I S E	T E S T	V A L V E	T E S T	V A L V E	T E S T	C A T E G O R Y	L O C K O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E S	T I M E	L I M I T S	P A R T I A L	F U L L S T R O K E	F R E Q U E N C Y	C O M M E N T S	
3PR-93	OFD-110A-3.3	Chan. "A/B" PASP Supply Selector	P			X						B						†			F		3 Mo	
3PR-94	OFD-110A-3.3	Chan. "A/B" PASP Return Selector	P			X						B						†			F		3 Mo	
3RC-4	OFD-100A-3.2	Block Valve for PORV	P			X						B			X			15			F		3 Mo	
3RC-5	OFD-110A-3.1	Pressure Steam Sample	P	J		S						A			X			30			F		3 Mo	
3RC-6	OFD-110A-3.1	Pressure Sample	P	J		S						A			X			30			F		3 Mo	
3RC-7	OFD-110A-3.1	Pressure Sample	P	J		S						A			X			10			F		3 Mo	
3RC-49	OFD-110A-3.1	Loop "B2" Drain PX (58)	M	X								A											RF	
3RC-50	OFD-110A-3.1	Press Sample Penet 58 Drain	M	X								A											RF	
3RC-66	OFD-100A-3.2	Power Operated Relief Valve (PORV)	P			X						B						†			F		S/D	59
3RC-67	OFD-100A-3.2	Pressurizer Relief	R					X				C											RF	73
3RC-68	OFD-100A-3.2	Pressurizer Relief	R					X				C											RF	73
3RC-155	OFD-100A-3.1	Loop "A" High Point Vent	P			F						B						2			F		RF	63
3RC-156	OFD-100A-3.1	Loop "A" High Point Vent Block	P			F						B						2			F		RF	63

V A L V E N O.	D R A W I N G N O.	VALVE NAME	S A F E T Y C H E C K L O C K O P E N / S H U T P O S I T I O N V E R T R E F U E L I N G S T R O K E I S T S P U L L R E L E A S E F R E Q U E N C Y C O M M E N T S										
			T Y P E	L E A K	E X C I S E	V A L V E	V A L V E	C A T E G O R Y	O P E N / S H U T	I N D I C A T O R	2	F	RF
3RC-157	OFD-100A-3.1	Loop "B" High Point Vent	P		F		B			2	F	RF	63
3RC-158	OFD-100A-3.1	Loop "B" High Point Vent Block	P		F		B			2	F	RF	63
3RC-159	OFD-100A-3.1	Reactor Vessel Head Vent	P		F		B			2	F	RF	63
3RC-160	OFD-100A-3.1	Reactor Vessel Head Vent Block	P		F		B			2	F	RF	63
3RC-162	OFD-100A-3.1	Post Accident Sample Valve	P		F		B			2	F	3 Mo	
3RC-163	OFD-100A-3.1	Post Accident Sample Valve	P		F		B			2	F	3 Mo	
3RC-164	OFD-100A-3.1	Post Accident Sample Valve	M	J	M		A			NR	F	3 Mo	
3RC-165	OFD-100A-3.1	Post Accident Sample Valve	M	J	M		A			NR	F	3 Mo	
3RC-175	OFD-100A-3.1	HP Vent PAS System (5b)	M	X			A					RF	
3RC-176	OFD-100A-3.1	Test Conn PAS System (5b)	M	X			A					RF	
3RC-179	OFD-100A-3.1	Post Accident Sample Block "B" Loop	M		M		B			NR	F	3 Mo	
3SF-60	OFD-104A-3.1	Canal Fill Pent. Block	M	J	P		A						25
3SF-61	OFD-104A-3.1	Canal Fill Pent. Block	M	J	P		A						25

V A L V E	D R A W I N G	N O.	VALVE NAME	T Y P E	L E A K	E X C E S S	S A F E T Y	C H E C K	O P E N / S H U T	P O S I T I O N	V E R I F I C A T I O N	A T T E N T I O N	S T R O K E S	F U L L S T R O K E	R E Q U E N C Y	C O M M E N T S
SSF-3HP-405	OFD-101A-3.5	RC Makeup Recirc. Line	P	J	X				A		X		9	F	3 Mo	
SSF-3HP-417	OFD-101A-3.5	RC Makeup Recirc. Line	P	J	X				A		X		8	F	3 Mo.	
SSF-3HP-423	OFD-101A-3.5	RC Makeup Pump Recirc Drain (12)	M	X					A						RF	
SSF-3HP-425	OFD-101A-3.5	Letdown to Spent Fuel Vent (12)	M	X					A						RF	
SSF-3HP-426	OFD-101A-3.5	RC Return from Letdown Line	P	J	X				A		X		8	F	S/D	49
SSF-3HP-428	OFD-101A-3.5	RC Return from Letdown Line	P	J	X				A		X		13	F	3 Mo	
SSF-3SF-82	OFD-101A-3.5	RC Makeup Pump Suction	P	J	X				A		X		13	F	3 Mo	
SSF-3SF-97	OFD-104A-3.1	RC Makeup Pump Suction	P	J	X				A		X		13	F	3 Mo	
SSF-3SF-98	OFD-104A-3.1	SFP to RC Makeup Vent (11)	M	X					A						RF	
SSF-3SF-99	OFD-104A-3.1	SFP to RC Makeup Drain (11)	M	X					A						RF	
3V-186	OFD-121C-3.1	Main Condenser Vacuum Breaker	P		X				B		X			F	RF	84
Eight Internal Check Valves (No OFD Assigned)			C						X	C					RF	92

RELIEF REQUEST BASES

1. Valve(s): 1FDW-311, 312, 317, 318, 373, 383
2FDW-311, 312, 317, 318, 373, 383
3FDW-311, 312, 317, 318, 373, 383

Category: C

Drawing Number/Coordinates: OFD-121D-1.1/I-6, E-6, K-10, D-10, K-7, D-7
OFD-121D-2.1/J-6, E-7, K-10, D-10, K-7, D-7
OFD-121D-3.1/I-6, E-6, K-10, D-10, K-7, D-7

Function: These valves normally prevent backflow from the feedwater line to the emergency feedwater pump. In an emergency they open to allow flow from the emergency feedwater pump to the normal and emergency feedwater nozzles. The FDW valves on the original lines were approved per Sec. 1.10.2.1. However, the line was revised by NSM-1275. These are the new valves on the emergency feedwater lines.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: The emergency feedwater pump supplies unheated condensate to the steam generators. Therefore, exercising these valves at power would create undue thermal stresses on the steam generator tubes. In addition, the introduction of oxygen saturated water into the steam generators during a cold shutdown would delay startup.

Alternate Testing: These valves will be full-stroke exercised at refueling outages.

2. Valve(s): 1FDW-345, 346, 442
2FDW-345, 346, 442
3FDW-345, 346, 442

Category: C

Drawing Number/Coordinates: OFD-121D-1.1/K-12, D-12, D-11
OFD-121D-2.1/K-12, D-12, D-11
OFD-121D-3.1/K-13, D-12, D-11

Function: These valves normally prevent backflow from the feedwater line to the SSF Auxiliary feedwater pump. In an SSF emergency they open to allow flow from the SSF Auxiliary feedwater pump to the emergency feedwater nozzles.

Test Requirement: IWV-3520 Tests for Check Valves.

RELIEF REQUEST BASES CONT'D

Bases for Relief: The SSF Auxiliary feedwater pump supplies unheated lake water to the steam generators. Therefore, exercising these valves at power would create undue thermal stresses on the steam generator tubes. In addition, the introduction of chemically contaminated water into the steam generators during a cold shutdown would delay startup.

Alternate Testing: These valves will be full-stroke exercised at refueling outages.

3. Valve(s): SSF-1CCW-269
SSF-2CCW-269
SSF-3CCW-269

Category: B

Drawing Number/Coordinates: OFD-121D-1.1/G-13
OFD-121D-2.1/G-13
OFD-121D-3.1/G-13

Function: In an SSF emergency these valves can be throttled open from SSF Control Room to allow Auxiliary Feedwater from several sources to feed the "A" Steam Generator.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: Failure of these valves during Exercise Testing at Power Operation would result in any Auxiliary Feedwater Injection being distributed to both the "A" and "B" Steam Generators.

Alternate Testing: These valves will be full-stroke exercised during cold shutdown, as allowed by IWV-3412.

4. Valve(s): 1PR-1, 2, 3, 4, 5, 6
2PR-1, 2, 3, 4, 5, 6
3PR-1, 2, 3, 4, 5, 6

Category: A (PR-1, -2, -5, -6)
B (PR-3, -4)

Drawing Number/Coordinates: OFD-116A-1.1/G-3, G-5, G-7, D-7, D-5, D-3
OFD-116A-2.1/G-3, G-5, G-7, D-7, D-5, D-3
OFD-116A-3.1/G-3, G-5, G-7, D-7, D-5, D-3

Function: Building Isolation

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: These valves are taken out of service during unit startup and returned to service for purging during Cool Down.

RELIEF REQUEST BASES CONT'D

Alternate Testing: These valves will be tested prior to returning the system to service when required for building isolation.

5. Valve(s): SSF-1HP-399, 400, 401, 402
SSF-2HP-399, 400, 401, 402
SSF-3HP-399, 400, 401, 402

Category: C

Drawing Number/Coordinates: OFD-101A-1.5/G-14, H-14, F-14, F-14
OFD-101A-2.5/H-13, G-13, F-13, F-13
OFD-101A-3.5/H-13, G-14, F-14, F-14

Function: In an SSF Emergency these valves open to allow flow from the RC Makeup System to the RC Pump Seal Supply.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: Any exercise testing of these valves at Power Operation would result in injecting Spent Fuel Pool Water into the RC Pump Seals. This could result in Power Transients, Uncontrolled Reactivity Changes, Reactor Trips or Extensive Cleanup Requirements, particularly near the end of cycle.

Alternate Testing: These valves will be full-stroke exercised during cold shutdown, as allowed by IWV-3522.

6. Valve(s): 1HP-101, 102
2HP-101, 102
3HP-101, 102

Category: C

Drawing Number/Coordinates: OFD-101A-1.3/J-3, E-3
OFD-101A-2.3/J-3, E-3
OFD-101A-3.3/J-2, E-2

Function: Normally prevents backflow from HPI pump suction header to BWST. In emergency, opens to provide flow from BWST to HPI pumps.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: Quarterly HPI pump tests utilize suction from the letdown storage tank. These valves are located in piping which contains highly borated water from the BWST. Exercising the valves would cause injection of highly borated water into the RCS, necessitating

RELIEF REQUEST BASES CONT'D

extensive cleanup. Late in core life, injecting BWST water (>1800 ppm boron) would cause a rapid power transient and consequent reactor trip. Testing at cold shutdown could prevent reactor startup due to a relatively high boron concentration. In addition, full-stroke exercising of these valves could cause overpressurization of the RCS to occur.

Alternate Testing: These valves will be partial-stroke exercised during each refueling outage.

7. Valve(s): 1HP-105, 109, 113
 2HP-105, 109, 113
 3HP-105, 109, 113

Category: C

Drawing Number/Coordinates: OFD-101A-1.3/J-10, G-10, D-10
 OFD-101A-2.3/J-10, G-10, D-10
 OFD-101A-3.3/J-10, G-10, D-10

Function: Discharge check valves for HPI pumps A, B and C.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: These valves cannot be full-stroke exercised during cold shutdown due to the insufficient volume of water available for the required flowrate. In addition, overpressurization of the RCS could occur.

Alternate Testing: These valves will be partial-stroke exercised quarterly and full-stroke exercised during each refueling outage.

8. Valve(s): 1HP-5
 2HP-5
 3HP-5

Category: A

Drawing Number/Coordinates: OFD-101A-1.1/K-8
 OFD-101A-2.1/K-8
 OFD-101A-3.1/K-8

Function: Provides penetration isolation for the letdown coolers.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: Exercise of these valves at power operation would cause the loss of volume and chemistry control.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412.

RELIEF REQUEST BASES CONT'D

9. Valve(s): 1HP-20
2HP-20
3HP-20

Category: A

Drawing/Number Coordinates: OFD-101A-1.1/F-6
OFD-101A-2.1/E-6
OFD-101A-3.1/E-6

Function: Penetration isolation for the reactor coolant pump (RCP) seal return lines.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test.

Bases for Relief: These valves are containment isolation valves in a non-redundant flow path. Failure of the valves during testing could result in the loss of the RCP seal water return system. This could cause the loss of RCP seals and the release of reactor coolant into the Reactor Building. Damage to RCP seals would require a reactor shutdown. In addition, piping on the seal side (building) of the valves does not contain adequate pressurization and test connections for testing in the direction specified by IWV-3420.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412. Pneumatic leak rate testing from the penetration side of the valves is being performed at each refueling outage.

10. Valve(s): 1HP-21
2HP-21
3HP-21

Category: A

Drawing Number/Coordinates: OFD-101A-1.1/E-7
OFD-101A-2.1/E-8
OFD-101A-3.1/E-8

Function: Penetration isolation for the RCP seal return lines.

Test Requirement: IWV-3410 Valve Exercising Test.

RELIEF REQUEST BASES CONT'D

Bases for Relief: These valves are containment isolation valves in a non-redundant flow path. Failure of the valves during testing could result in the loss of the RCP seal water return system. This could cause the loss of RCP seals and the release of reactor coolant into the Reactor Building. Damage to RCP seals would require a reactor shutdown.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412.

11. Valve(s): 1HP-26
2HP-26
3HP-26

Category: B

Drawing Number/Coordinates: OFD-101A-1.4/I-7
OFD-101A-2.4/J-7
OFD-101A-3.4/J-6

Function: In an emergency, open for HPI pump A flow.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: Failure of these valves during exercise testing at power operation would result in the loss of primary pressurizer level control, and possible reactor trip.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412.

12. Valve(s): 1HP-126, 127
2HP-126, 127
3HP-126, 127

Category: C

Drawing Number/Coordinates: OFD-101A-1.4/J-13, J-13
OFD-101A-2.4/J-13, J-13
OFD-101A-3.4/J-12, J-12

Function: RC Loop A (normal makeup) check valves to prevent backflow from the RCS.

Test Requirement: IWV-3520 Tests for Check Valves.

RELIEF REQUEST BASES CONT'D

Bases for Relief: These valves are inaccessible during power operation because they are located inside the secondary shielding in a high radiation area. Testing these valves and valves HP-152 and -153 would result in a dose to the operator of approximately 200 mrem. They cannot be full-stroke exercised during cold shutdowns due to the possibility of overpressurization.

Alternate Testing: These valves will be full-stroke exercised during each refueling outage.

13. Valve(s): 1HP-152, 153
 2HP-152, 153
 3HP-152, 153

Category: C

Drawing Number/Coordinates: OFD-101A-1.4/D-14, D-13
 OFD-101A-2.4/D-13, E-13
 OFD-101A-3.4/D-13, E-13

Function: RC Loop B stop check valves to prevent backflow from the RCS.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: These valves cannot be exercised during power operation since they are inaccessible. They are located inside the secondary shield in a high radiation area, and testing these valves and valves HP-126 and -127 would result in a dose to the operator of approximately 200 mrem. In addition, exercising these valves at power or at cold shutdown would cause the generation of waste and could delay startup due to the injection of borated water.

Alternate Testing: These valves will be full-stroke exercised at each refueling outage.

14. Valve(s): 1HP-188
 2HP-188
 3HP-188

Category: C

Drawing Number/Coordinates: OFD-101A-1.4/D-11
 OFD-101A-2.4/D-11
 OFD-101A-3.4/D-10

Function: HPI Loop B check valves to prevent backflow from the RCS.

RELIEF REQUEST BASES CONT'D

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: Exercising these valves at power or cold shutdown would cause added waste generation. In addition, exercising them at power could cause a reactor trip and exercising them at cold shutdowns could delay startup due to the injection of borated water.

Alternate Testing: These valves will be full-stroke exercised at each refueling outage.

15. Valve(s): 1HP-194
2HP-194
3HP-194

Category: C

Drawing Number/Coordinates: OFD-101A-1.4/J-10
OFD-101A-2.4/J-10
OFD-101A-3.4/J-8

Function: HPI Loop A check valves to prevent backflow from the RCS.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: These valves cannot be full-stroke exercised at power or at cold shutdown due to the possibility of overpressurization.

Alternate Testing: These valves will be full-stroke tested at each refueling outage.

16. Valve(s): 1CF-3, 4, 7, 19
2CF-3, 4, 7, 19
3CF-3, 4, 7, 19

Category: A

Drawing Number/Coordinates: OFD-102A-1.3/G-9, G-5, G-4, G-4
OFD-102A-2.3/G-9, G-4, F-3, G-3
OFD-102A-3.3/G-9, G-5, G-4, G-4

Function: A & B Core Flood Tank sample and drain line isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test.

RELIEF REQUEST BASES CONT'D

Bases for Relief: These are normally closed passive valves which are required to be closed, and exercise testing should therefore be excluded per IWV-1200. Exemption from leak testing pursuant to 10CFR50, Appendix J, has been granted. In addition, normal operating pressure for this system is well in excess of design maximum accident pressure.

Alternate Testing: None proposed.

17. Valve(s): 1CF-11, 12, 13, 14
2CF-11, 12, 13, 14
3CF-11, 12, 13, 14

Category: A/C

Drawing Number/Coordinates: OFD-102A-1.3/E-10, D-9, E-6, D-7
OFD-102A-2.3/D-10, C-10, D-6, C-6
OFD-102A-3.3/E-10, D-9, E-6, D-7

Function: These valves normally prevent backflow from RCS to core flood tanks. In an emergency, open to permit flow from core flood tanks and/or LPI System to the Reactor Coolant System.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: These valves cannot be subjected to greater than RCS pressure during power operation. They cannot be full-stroke exercised during cold shutdown due to the possibility of overpressurization and hydraulic shock to the system. They cannot be full-stroke exercised during refueling outages due to the possibility of airborne and surface contamination resulting from surge spray, hydraulic shock to core internals and fuel, and extensive damage to the core flood tank isolation valves.

Alternate Testing: These valves will be partial-stroke testing during cold shutdowns.

18. Valve(s): 1LP-1, 2
2LP-1, 2
3LP-1, 2

Category: B

Drawing Number/Coordinates: OFD-102A-1.1/H-2, H-2
OFD-102A-2.1/H-2, H-2
OFD-102A-3.1/H-2, H-3

RELIEF REQUEST BASES CONT'D

Function: Decay heat removal line isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: These are isolation valves in a non-redundant flow path, and they serve as the RCS pressure boundary. They cannot be exercise tested during power operation, since failure in the open position would decrease the degree of redundancy in the system pressure boundary. In addition, the LP-1 valves are interlocked to prevent opening while system pressure exceeds LPI system design pressure.

These valves are not considered Category "A" since LP-25 (Relief Valve) is connected outside of LP-1 and LP-2. The setpoint for LP-25 is 200 PSIG. Should LP-1 and LP-2 leak significantly, LP-25 will open and raise the sump level. When the leak is greater than Technical Specification allows, the reactor would be shut down for maintenance.

Alternate Testing: These valves will be full-stroke exercised at cold shutdowns, as allowed by IWV-3412.

19. Valve(s): 1LP-47, 48
2LP-47, 48
3LP-47, 48

Category: A/C

Drawing Number/Coordinates: OFD-102A-1.2/E-14, K-14
OFD-102A-2.2/E-14, K-14
OFD-102A-3.2/E-14, K-14

Function: Loop A and B header penetration isolation check valves.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: These valves cannot be exercised during power operation since the operating system pressure is greater than the LPI system pressure.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3522.

20. Valve(s): 1LP-103, 104
2LP-103, 104
3LP-103, 104

RELIEF REQUEST BASES CONT'D

Category: B

Drawing Number/Coordinates: OFD-102A-1.1/H-2, G-2
OFD-102A-2.1/G-2, F-2
OFD-102A-3.1/G-2, G-2

Function: Post-LOCA boron dilution line isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: These are redundant isolation valves which serve as an RCS pressure boundary. Failure of one valve while the other is being exercised would result in a loss of RCS pressure boundary.

Alternate Testing: These valves will be full-stroke tested at cold shutdowns, as allowed by IWV-3412.

21. Valve(s): 1LP-105

Category: B

Drawing Number/Coordinates: OFD-102A-1.1/H-2

Function: Back-up to boron dilution flow path. In addition, this valve in the closed position will allow proper line-up for decay heat removal during shutdown.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: Failure of this valve to close during power operation would prevent establishment of decay heat removal.

Alternate Testing: This valve will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412.

22. Valve(s): 1BS-5, 6
2BS-5, 6
3BS-5, 6

Category: C

Drawing Number/Coordinates: OFD-102A-1.1/E-8, C-10
OFD-102A-2.1/E-8, C-10
OFD-102A-3.1/F-8, C-9

Function: Loop A and Loop B BWST suction line check valves.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: These valves cannot be full-stroke exercised because the present piping size and configuration prevent recirculation flow from equaling spray flow.

RELIEF REQUEST BASES CONT'D

Alternate Testing: These valves will be partial-stroke tested quarterly.

23. Valve(s): 1BS-11, 16
2BS-11, 16
3BS-11, 16

Category: C

Drawing Number/Coordinates: OFD-103A-1.1/J-6, E-6
OFD-103A-2.1/J-6, E-6
OFD-103A-3.1/J-6, E-6

Function: Loop A and Loop B pump discharge check valves.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: These valves cannot be full-stroke exercised because the present piping size and configuration prevent recirculation flow from equaling design spray flow.

Alternate Testing: These valves will be partial-stroke exercised quarterly.

24. Valve(s): 1BS-14, 19
2BS-14, 19
3BS-14, 19

Category: C

Drawing Number/Coordinates: OFD-103A-1.1/J-10, E-10
OFD-103A-2.1/J-10, E-10
OFD-103A-3.1/J-10, E-10

Function: Open to allow RB spray flow to header.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: Due to the configuration of these valves, it is very difficult to verify air flow through the spray nozzles. Due to the redundancy with RB coolers and the two independent spray trains, and since these valves are not subjected to liquid or a corrosive atmosphere, frequent testing is not necessary.

Alternate Testing: These valves will be partial-stroke tested each refueling outage.

25. Valve(s): 1SF-60, 61
2SF-60, 61
3SF-60, 61

RELIEF REQUEST BASES CONT'D

Category: A

Drawing Number/Coordinates: OFD-104A-1.1/D-3, D-3
OFD-104A-1.1/D-11, D-12
OFD-104A-3.1/D-5, D-4

Function: Fuel transfer canal fill line penetration isolation.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test

Bases for Relief: These valves are manual passive, normally closed valves and are therefore excluded from exercise testing per IWV-1200. They do not require Type C leak rate testing per Appendix J. Also, adequate leak test connections do not exist.

Alternate Testing: This penetration is challenged during Appendix J Type A test

26. Valve(s): 1CS-5, 1GWD-12
2CS-5, 2GWD-12
3CS-5, 3GWD-12

Category: A

Drawing Number/Coordinates: OFD-107A-1.2/D-5, OFD-107A-1.1/J-11
OFD-107A-2.2/D-5, OFD-107A-2.1/J-11
OFD-107A-3.2/D-5, OFD-107A-3.1/J-11

Function: Reactor Building penetration isolation valves for quench tank drain and vent lines.

Test Requirement: IWV-3420 Valve Leak Rate Test

Bases for Relief: Exemption from leak rate testing per 10CFR50, Appendix J, has been granted since the lines involved do not have adequate isolation, vent and/or test lines to perform the leak rate test from the upstream (building) side as specified by IWV-3420.

Alternate Testing: These valves are pneumatically leak tested in the reverse direction (i.e., from the penetration side) at each refueling outage.

27. Valve(s): 1CS-11, 12
2CS-11, 12
3CS-11, 12

RELIEF REQUEST BASES CONT'D

Category: A/C

Drawing Number/Coordinates: OFD-107A-1.1/J-2, J-5
OFD-107A-2.1/J-2, J-5
OFD-107A-3.1/J-3, J-5

Function: Quench tank recirculation line penetration check valves.

Test Requirement: IWV-3420 Valve Leak Rate Test and IWV-3520 Tests for Check Valves.

Bases for Relief: These check valves can be shown to open by normal periodic recirculation of the quench tank. However, their emergency function is to close on reversal of pressure, and this can only be shown by a leak rate test. Due to the extensive draining and venting of the line which is required and the consequent waste generation and radiation dose, leak rate testing can only be performed at refueling outages.

Alternate Testing: These valves are pneumatically tested at each refueling outage.

28. Valve(s): 1LWD-2
2LWD-1
3LWD-1

Category: A

Drawing Number/Coordinates: OFD-107B-1.1/C-11
OFD-107B-2.1/C-11
OFD-107B-3.1/C-11

Function: Normal sump drain line penetration isolation valves.

Test Requirement: IWV-3420 Valve Leak Rate Test

Bases for Relief: Exemption from leak rate testing per 10CFR50, Appendix J, has been granted since the drain line does not have adequate isolation and/or test connections to perform the leak rate test from the building side, as specified by IWV-3420.

Alternate Testing: These valves are pneumatically leak tested from the reverse direction at each refueling outage.

29. Valve(s): 1PR-7, 9, 59, 60
2PR-7, 9, 59, 60
3PR-7, 9, 59, 60

Category: A

RELIEF REQUEST BASES CONT'D

Drawing Number/Coordinates: OFD-116C-1.1/G-3, D-1, H-2, D-3
 OFD-116C-2.1/G-3, D-1, H-2, D-3
 OFD-116C-3.1/G-3, D-1, H-2, D-3

Function: Reactor Building Radiation monitor inlet and return block penetration isolation valves.

Test Requirement: IWV-3420 Valve Leak Rate Test

Bases for Relief: Adequate test connections on the upstream side of these valves do not exist to satisfactorily perform leak rate testing, as specified in IWV-3420.

Alternate Testing: The valves will be leak rate tested in the reverse direction at each refueling outage.

30. Valve(s): 1FDW-33, 35, 36, 42, 44, 45
 2FDW-33, 35, 36, 42, 44, 45
 3FDW-33, 35, 36, 42, 44, 45

Category: B

Drawing Number/Coordinates: OFD-121B-1.3/J-6, L-7, J-7, E-6, F-7, E-7
 OFD-121B-2.3/J-5, K-6, J-7, E-5, F-7, E-7
 OFD-121B-3.3/J-6, K-7, J-8, E-6, F-7, E-8

Function: Steam generator startup block, startup control, and normal startup header valves.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: These valves are normally open to allow feedwater flow to continue through the startup line. Closing one of the valves would result in a feedwater flowrate transient which could cause a reactor trip.

Alternate Testing: These valves will be full-stroke exercised at cold shutdowns, as allowed by IWV-3412.

31. Valve(s): 1FDW-38, 47
 2FDW-38, 47
 3FDW-38, 47

Category: B

Drawing Number/Coordinates: OFD-121B-1.3/L-8, F-8
 OFD-121B-2.3/L-7, F-7
 OFD-121B-3.3/L-8, F-8

Function: Emergency feedwater header block valves.

Test Requirement: IWV-3410 Valve Exercising Test.

RELIEF REQUEST BASES CONT'D

Bases for Relief: These valves cannot be exercised during power operation because they are not designed to close against system pressure.

Alternate Testing: These valves will be full-stroke exercised at cold shutdowns, as allowed by IWV-3412.

32. Valve(s): 1FDW-39, 48, 232, 233
2FDW-39, 48, 232, 233
3FDW-39, 48, 232, 233

Category: C

Drawing Number/Coordinates: OFD-121D-1.1/J-10, E-10, K-13, D-13
OFD-121D-2.1/J-10, E-10, K-13, D-13
OFD-121D-3.1/I-10, E-10, K-13, D-13

Function: Steam generator emergency header check valves.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: These valves cannot be exercised during power operation without thermal shocking the OTSGs. Exercising these valves during cold shutdown would require injection of Oxygen saturated water into the OTSGs and subsequently cause a delay in reactor startup.

Alternate Testing: These valves will be full-stroke exercised at each refueling outage.

33. Valve(s): 1FDW-103, 104
2FDW-103, 104
3FDW-103, 104

Category: A

Drawing Number/Coordinates: OFD-121B-1.5/K-9, C-9
OFD-121B-2.5/J-9, C-9
OFD-121B-3.5/J-9, D-9

Function: Steam generator drain line penetration isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test.

Bases for Relief: These are passive, normally closed valves which are not required to open in an emergency, and are therefore excluded from exercise testing per IWV-1200. Exemption from leak rate testing per 10CFR50, Appendix J, has been granted since they are open only during heatup and are isolated at power by manual, normally closed valves.

RELIEF REQUEST BASES CONT'D

Alternate Testing: None proposed.

34. Valve(s): 1MS-102, 103, 104, 105
2MS-102, 103, 104, 105
3MS-102, 103, 104, 105

Category: A

Drawing Number/Coordinates: OFD-122B-1.1/J-3, J-4, J-4, J-5
OFD-122B-2.1/J-3, J-4, J-4, J-5
OFD-122B-3.1/J-3, J-4, J-4, J-5

Function: Turbine stop valves.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: Exercising these valves at full power results in a water hammer effect which is considered to be a possible cause of steam generator tube leaks.

Alternate Testing: These valves are partially exercised at least quarterly and full stroke exercised at each cold shutdown, as allowed by IWV-3412.

35. Valve(s): 1N-116, 119
2N-106, 107, 116, 119
3N-106, 107, 116, 119

Category: A

Drawing Number/Coordinates: OFD-127B-1.2/E-4, F-4, E-12, D-12
OFD-127B-2.2/E-4, F-4, E-12, D-12
OFD-127B-3.3/E-4, F-4, E-12, D-12

Function: Nitrogen blanketing header isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test.

Bases for Relief: These are passive manual, normally closed valves and are therefore excluded from exercise testing per IWV-1200. They do not require Type C leak rate testing per Appendix J. Also, adequate leak rate test connections do not exist.

Alternate Testing: These penetrations are challenged during Appendix J Type A Test.

36. Valve(s): 1N-128, 130
2N-128, 130
3N-128, 130

Category: A

RELIEF REQUEST BASES CONT'D

Drawing Number/Coordinates: OFD-127B-1.2/F-6, J-6
OFD-127B-2.2/G-6, J-6
OFD-127B-3.2/G-6, J-6

Function: Core flood tank supply isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test

Bases for Relief: These are passive manual, normally closed valves, and are therefore excluded from exercise testing per IWV-1200. They do not require Type C leak rate testing per Appendix J. Adequate leak rate test connections do not exist.

Alternate Testing: This penetration is challenged during Appendix J Type A Test.

37. Valve(s): 1CA-27, 29
2CA-27, 29
3CA-27, 29

Category: A

Drawing Number/Coordinates: OFD-127B-1.2/G-7, J-7
OFD-127B-2.2/G-7, J-7
OFD-127B-3.2/G-7, J-7

Function: Fill and make up from chemical addition system to core flood tanks.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test

Bases for Relief: These are passive manual, normally closed valves, and are therefore excluded from exercise testing per IWV-1200. They do not require Type C leak rate testing per Appendix J. Adequate leak rate test connections do not exist.

Alternate Testing: This penetration is challenged during Appendix J Type A Test.

38. Valve(s): 1HP-155, 156
2HP-155, 156
3HP-155, 156

Category: A

RELIEF REQUEST BASES CONT'D

Drawing Number/Coordinates: OFD-127B-1.2/H-7, I-7
OFD-127B-2.2/H-7, I-7
OFD-127B-3.2/H-7, I-7

Function: Core flood tank fill line isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test

Bases for Relief: These are passive manual, normally closed valves, and are therefore excluded from exercise testing per IWV-1200. They do not require Type C leak rate testing per Appendix J. Adequate test connections do not exist.

Alternate Testing: This penetration is challenged during Appendix J Type A Test.

39. Valve(s): 1BA-5, 33
2BA-5, 33
3BA-5, 33

Category: A

Drawing Number/Coordinates: OFD-137A-1.2/H-8, H-9
OFD-137A-2.2/G-8, G-9
OFD-137A-3.2/F-8, F-9

Function: Breathing air line isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test

Bases for Relief: These are passive manual, normally closed valves and are therefore excluded from exercise testing per IWV-1200. Adequate leak rate test connections do not exist on Unit 2 and Unit 3.

Alternate Testing: This penetration is challenged during Appendix J Type A Test.

40. Valve(s): 1CC-7
2CC-7
3CC-7

Category: A

Drawing Number/Coordinates: OFD-144A-1.2/D-12
OFD-144A-2.2/D-12
OFD-144A-3.2/D-12

RELIEF REQUEST BASES CONT'D

Function: Component cooling system return line penetration isolation.

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test.

Bases for Relief: Exercising this valve during power operation would remove cooling water to the control rod drive mechanism and to the reactor coolant pumps, resulting in damage to thermal barriers and pump seal failure. In addition, closing these valves would cause over heating of the letdown fluid which could cause isolation of the letdown flow which could cause loss of pressurize level control. Adequate isolation does not exist on the upstream side of the valve for leak rate testing, as specified by IWV-3420.

Alternate Testing: The valve will be full-stroke exercised at cold shutdowns, as allowed by IWV-3412. The leak rate test will be performed from the penetration side at each refueling outage.

41. Valve(s): 1CC-8
2CC-8
3CC-8

Category: A

Drawing Number/Coordinates: OFD-144A-1.2/D-14
OFD-144A-2.2/D-13
OFD-144A-3.2/D-13

Function: Component cooling system return line penetration isolation.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: Exercising this valve during power operation would remove cooling water to the control rod drive mechanism and to the reactor coolant pumps, resulting in damage to thermal barriers and pump seal failure. In addition, closing these valves would cause over heating of the letdown fluid which could cause isolation of the letdown flow which could cause loss of pressurize level control.

Alternate Testing: The valve will be full-stroke exercised tested at cold shutdowns as allowed by IWV-3412.

RELIEF REQUEST BASES CONT'D

42. Valve(s): 1CC-20, 24, 76, 77
2CC-20, 24, 76, 77
3CC-20, 24, 76, 77

Category: A/C

Drawing Number/Coordinates: OFD-144A-1.2/D-4, D-2, OFD-144A-1.3/H-6, H-7
OFD-144A-2.2/D-3, D-1, OFD-144A-2.3/H-6, H-8
OFD-144A-3.2/D-3, D-2, OFD-144A-3.3/H-5, H-7

Function: Component cooling lines to RC pumps, letdown coolers, and control rod drive service structure penetration isolation valves.

Test Requirement: IWV-3420 Valve Leak Rate Test and IWV-3520 Tests for Check Valves.

Bases for Relief: Exercise testing these valves at power would isolate cooling from respective components. Testing at each cold shutdown would result in extensive waste generation. In order to demonstrate closure of these normally open valves, leak rate testing must be performed and this is done at refueling outages.

Alternate Testing: The valves will be exercise and leak rate tested at each refueling outage.

43. Valve(s): 1IA-90, 91
2IA-90, 91
3IA-90, 91

Category: A

Drawing Number/Coordinates: PO-149U/F-10, F-10
PO-149W/G-13, E-13
PO-149X/I-5, H-5

Function: Instrument air supply line penetration isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: These are passive manual, normally closed valves, and are therefore excluded from exercise testing per IWV-1200.

Alternate Testing: None proposed

RELIEF REQUEST BASES CONT'D

44. Valve(s): 1LRT-24, 25, 38, 39
2LRT-24, 25, 36, 37, 38, 39
3LRT-24, 25, 36, 37, 38, 39

Category: A

Drawing Number/Coordinates: OFD-137E-1.1/I-12,I-12,J-12,J-12
OFD-137E-1.1/G-12,G-12,F-12,F-12,G-12,G-12
OFD-137E-1.1/C-12,G-12,C-12,C-12,D-12,D-12

Function: Leak rate test instrumentation line penetration isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: These are passive manual, normally closed valves, and are therefore excluded from exercise testing per IWV-1200.

Alternate Testing: None proposed.

45. Valve(s): 1LP-29, 30
2LP-29, 30
3LP-29, 30

Category: C

Drawing Number/Coordinates: OFD-102A-1.1/E-6, C-6
OFD-102A-2.1/D-7, C-6
OFD-102A-3.1/E-7, C-7

Function: BWST to LPI header check valves.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: These valves are located in a section of piping which is common suction for both the LPI and RB spray pumps. The total design flowrate is 4500 gpm. However, the maximum flowrate which can be obtained under test conditions utilizing the LPI pumps is approximately 2700 gpm. Since there is no direct, external indication of valve position, there is no means for determining if the valves are full-stroke exercised at this flowrate.

Alternate Testing: These valves will be partial-stroke exercised quarterly.

46. Valve(s): 1HP-409, 410
2HP-409, 410
3HP-409, 410

Category: B

RELIEF REQUEST BASES CONT'D

Drawing Number/Coordinates: OFD-101A-1.4/D-7, H-7
OFD-101A-2.4/E-8, F-8
OFD-101A-3.4/E-8, H-7

Function: In an emergency, open for HPI flow through Cross-Connect to B and A Loops respectively. (Bypass for HP-27 and HP-26)

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: Failure of the valves during exercise testing at power operation would result in the loss of primary pressurizer level control and possibly a reactor trip. The exercising of HP-409 would also cause a thermal transient (AOTC #22A) on the B Loop.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412.

47. Valve(s): 1LP-17, 18
2LP-17, 18
3LP-17, 18

Category: B

Drawing Number/Coordinates: OFD-102A-1.2/K-13, E-13
OFD-102A-2.2/K-12, E-13
OFD-102A-3.2/K-13, E-13

Function: Low pressure injection line isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: In response to an NRC concern, these valves will not be exercised at power since, in the event of gross failure of both check valves downstream from these valves, opening valve LP-17 or LP-18 could result in rupture of the low pressure piping upstream.

Alternate Testing: These valves will be full-stroke exercised at cold shutdown, as allowed by IWV-3412.

48. Valve(s): SSF-1HP-398
SSF-2HP-398
SSF-3HP-398

Category: B

Drawing Number/Coordinates: OFD-101A-1.5/F-11
OFD-101A-2.5/F-12
OFD-101A-3.5/F-12

RELIEF REQUEST BASES CONT'D

Function: These valves normally prevent Spent Fuel Pool Flow from the RC Makeup System to the RC Pump Seals. In an SSF emergency, they open on command from the SSF to allow the RC Makeup System to supply RC Pump Seal Supply.

Test Requirement: IWV-3410 Valve Exercising Test.

Basis for Relief: Failure of these valves during Exercise Testing at Power Operation would result in injecting Spent Fuel Pool Water into the RC Pump Seals at the next running of the RC Makeup Pump. This could result in Power Transients, Uncontrolled Reactivity Changes, Reactor Trips or Extensive Cleanup Requirements, particularly near the end of cycle.

Alternate Testing: These valves will be full-stroke exercised during cold shutdown, as allowed by IWV-3412.

49. Valve(s): SSF-1HP-426
SSF-2HP-426
SSF-3HP-426

Category: A

Drawing Number/Coordinates: OFD-101A-1.5/J-10
OFD-101A-2.5/K-9
OFD-101A-3.5/K-9

Function: These valves normally prevent flow from the Pressurizer to the Spent Fuel Pool. In an SSF emergency, they allow Letdown Control of the Pressurizer Level.

Test Requirement: IWV-3410 Valve Exercising Test.

Basis for Relief: Failure of these valves during Exercise Testing at Power Operation would result in a small loss of reactor coolant to the Spent Fuel Pool the next time HP-428 is exercised.

Alternate Testing: These valves will be full-stroke exercised during cold shutdown, as allowed by IWV-3412.

50. Valve(s): SSF-1FDW-347
SSF-2FDW-347
SSF-3FDW-347

Category: B

Drawing Number/Coordinates: OFD-121D-1.1/D-13
OFD-121D-2.1/D-13
OFD-121D-3.1/D-13

RELIEF REQUEST BASES CONT'D

Function: In an SSF emergency, these valve can be throttled from SSF to control the Auxiliary Feedwater flow to the "B" Steam Generator to bring and maintain the unit in hot shutdown.

Test Requirement: IWV-3410 Valve Exercising Test.

Basis for Relief: Failure of these valves during Exercise Testing at Power Operation would result in blocking Auxiliary Feedwater from the "B" Steam Generator.

Alternate Testing: These valves will be full-stroke exercised during cold shutdown, as allowed by IWV-3412.

51. Valve(s): 1HP-120
2HP-120
3HP-120

Category: B

Drawing Number/Coordinates: OFD-101A-1.4/J-7
OFD-101A-2.4/J-7
OFD-101A-3.4/K-7

Function: During normal plant operation, these valves supply reactor coolant makeup flow.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: Failure of these valves during exercise testing at power operation would result loss of makeup control to the Reactor Coolant System.

Alternate Testing: These valves will be full-stroke exercised during cold shutdown, as allowed by IWV-3412.

52. Valve(s): 1LPSW-6, 15
2LPSW-6, 15
3LPSW-6, 15

Category: B

Drawing Number/Coordinates: OFD-124B-1.4/L-4, G-14
OFD-124B-2.4/L-2, G-14
OFD-124B-3.4/L-4, G-13

Function: Reactor coolant pump motor and motor bearing cooler isolation valves.

RELIEF REQUEST BASES CONT'D

Test Requirement: IWV-3410 Valve Exercising Test and IWV-3420 Valve Leak Rate Test.

Bases for Relief: These valves isolate flow to and from reactor coolant pump motor coolers. Failure of either valve during power operation would result in overheating of and consequent damage to the reactor coolant pumps. LPSW-6 has approximately 90 PSIG on the outside of the valve and is seismically qualified.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412. LPSW-15 will be leak rate tested at refueling outages per 10CFR50 Appendix J.

53. Valve(s): 1FW-64
2FW-64
3FW-64

Category: A

Drawing Number/Coordinates: OFD-106E-1.1/J-2
OFD-106E-2.1/J-3
OFD-106E-3.1/J-3

Function: Filtered Water lines building penetration isolation valves.

Test Requirement: IWV-3410 Valve Exercise Test.

Bases for Relief: These are passive manual, normally closed valves are therefore excluded from exercise testing per IWV-1200.

Alternate Testing: None proposed.

54. Valve(s): 1FW-65, 1DW-59, 60
2FW-65, 2DW-59, 60
3FW-65, 3DW-59, 60

Category: A

Drawing Number/Coordinates: OFD-106E-1.1/J-4, H-2, H-3
OFD-106E-2.1/J-6, H-3, H-3
OFD-106E-3.1/J-4, H-2, H-3

Function: Filtered water and demineralized water lines building penetration isolation valves.

Test Requirement: IWV-3410 Valve Exercise Test and IWV-3420 Valve Leak Rate Test.

RELIEF REQUEST BASES CONT'D

Basis for Relief: These are manual passive normally closed valves and are not required to be exercised per IWV-1200. In addition, piping on the building side of the valves does not contain adequate pressurization and test connections for testing in the direction specified by IWV-3420.

Alternate Testing: Pneumatic leak rate testing from the penetration side of the valves is being performed at each refueling outage.

55. Valve(s): 1LPSW-7, 8, 9, 10, 11, 12, 13, 14
 2LPSW-7, 8, 9, 10, 11, 12, 13, 14
 3LPSW-7, 8, 9, 10, 11, 12, 13, 14

Category: B

Drawing Number/Coordinates: OFD-124B-1.4/K-7, G-8, F-7, B-8, F-11,
 B-11, L-8, G-9
 OFD-124B-2.4/K-7, G-8, F-7, B-8, F-9, B-9,
 L-8, G-11
 OFD-126B-3.4/K-7, G-8, F-7, B-8, F-9,
 B-9, L-9, G-11

Function: Reactor Coolant Pump Motor Cooler Inlet and Outlet Valves.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: These valves isolate flow to and from RC Pump Motor Coolers. Failure of these valve(s) during power operation would result in overheating of and consequent damage to the Reactor Coolant Pumps.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412.

56. Valve(s): 1PR-71, 72, 73, 74, 75, 76, 77, 78, 79, 80
 2PR-71, 72, 73, 74, 75, 76, 77, 78, 79, 80
 3PR-71, 72, 73, 74, 75, 76, 77, 78, 79, 80

Category: B

Drawing Number/Coordinates: OFD-110A-1.3/K-2, K-2, J-2, I-2, H-2, F-2,
 F-2, E-2, D-2, C-2
 OFD-110A-2.3/K-2, J-2, J-2, I-2, H-2, F-2,
 F-2, E-2, D-2, C-2
 PO-110A-3.3/K-2, K-2, J-2, I-2, H-2, F-2,
 F-2, E-2, D-2, C-2

Function: Sample points for the Hydrogen Analyzer and the Post Accident Sample Panel.

Test Requirement: IWV-3412 Exercising Procedure.

RELIEF REQUEST BASES CONT'D

Bases for Relief: These valves are solenoid type which have no visible stem or reed switch for observing valve disk movement.

Alternate Testing: These valves disk movement will be verified quarterly by observing air pressure reduction when the disk moves as allowed by IWV-3412(b).

57. Valve(s): 1BS-7, 9
2BS-7, 9
3BS-7, 9

Category: C

Drawing Number/Coordinates: OFD-102A-1.1/F-11/D-11
OFD-102A-2.1/F-11/D-12
OFD-102A-3.1/E-11/C-12

Function: Normally Prevents backflow from BWST to the Decay Heat Coolers, this allows Building Spray to take suction on the BWST.

Test Requirement: IWV-3520 Check Valve Exercise Test.

Bases for Relief: To stroke these valves requires removing one train of Building Spray and one train of Low Pressure Injection from service. Additionally to stroke at cold shutdown would tie the RCS (Reactor Coolant System) to the BWST. This would reduce the water volume in the RCS.

Alternate Testing: These valves are full stroked during refueling outages.

58. Valve(s): 1SF-72, 73, 74
2SF-72, 73, 74
3SF-72, 73, 74

Category: A

Drawing Number/Coordinates: OFD-104A-1.1/J-3, J-3, I-4
OFD-104A-1.1/J-12, J-12, I-12
OFD-104A-3.1/J-4, J-5, I-5

Function: Transfer tube drain to sump valves.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: These are passive, normally closed valves which are not required to open in an emergency, and are therefore excluded from exercise testing per IWV-1200.

Alternate Testing: None proposed.

RELIEF REQUEST BASES CONT'D

59. Valve(s): 1RC-66
2RC-66
3RC-66

Category: B

Drawing Number/Coordinates: OFD-100A-1.2/K-8
OFD-100A-2.2/K-8
OFD-100A-3.2/K-8

Function: In event of RCS overpressurization, these valves (PORV) along with code relief are to open and relieve the excess pressure to the quench tank.

Test Requirement: IWV-3410 Valve Exercise Test.

Bases For Relief: Failure of these valves during exercise testing at power operation would require the block valve (RC-4) to remain closed, thereby eliminating the relief capabilities of these valves.

Actual valve position is not directly indicated (only pilot valve position). Operation will be verified by observation of flow, therefore operation will not be timed.

Alternate Testing: These valves will be full-stroke exercised during cold shutdown, as allowed by IWV-3412. Valve operation verified by observing flow.

60. Valve(s): 1DW-155, 156

Category: A

Drawing Number/Coordinates: OFD-106E-1.1/E-3, E-4

Function: Demineralized water line to the third seals of the reactor coolant pumps, building penetration isolation valves.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: Stroking valves closed can only be done by leak rate test; therefore, verifying these valves closed at power or cold shutdown would require excessive manpower, cause excessive exposure and generate excessive liquid waste.

Alternate Testing: These valves are verified closed by leak rate testing during refueling outages.

RELIEF REQUEST BASES CONT'D

61. Valve(s): 1HP-144, 145, 146, 147, 283, 284, 286, 393
2HP-144, 145, 146, 147, 284, 286, 389, 390
3HP-144, 145, 146, 147, 283, 284, 285, 286

Category: C

Drawing Number/Coordinates: OFD-101A-1.4/G-13, F-13, H-13, I-12, E-10,
G-10, H-10, I-10
OFD-101A-2.4/F-12, G-12, H-12, I-12, F-10,
H-10, I-10, G-10
OFD-101A-3.4/H-13, I-13, G-13, F-13, I-11,
H-11, F-11, G-11

Function: RB Isolation of High Pressure Injection to Reactor Coolant Pump
Seals.

Test Requirement: IWV-3520 Tests for Check Valves

Bases for Relief: Stroking valves closed can only be done by leak rate
test; therefore, verifying these valves closed at
power or cold shutdown would require excessive manpower,
cause excessive exposure and generate excessive liquid
waste.

Alternate Testing: These valves are verified closed by leak rate testing
during refueling outages.

62. Valve(s): 1LP-46
2LP-46
3LP-46

Category: C

Drawing Number/Coordinates: OFD-100A-1.2/I-9
OFD-100A-2.2/I-9
OFD-100A-3.2/I-10

Function: Pressurizer Auxiliary Inlet Check Valve

Test Requirement: IWV-3520 Tests for Check Valves

Bases for Relief: Verifying these valves closed at power would require
excessive manpower, cause excessive exposure and
generate excessive liquid waste.

Alternate Testing: These valves are verified closed by leak testing during
a cold shutdown outage.

RELIEF REQUEST BASES CONT'D

63. Valve(s): 1RC-155, 156, 157, 158, 159, 160
2RC-155, 156, 157, 158, 159, 160
3RC-155, 156, 157, 158, 159, 160

Category: B

Drawing Number/Coordinate: OFD-100A-1.1/J-4, J-4, I-11, I-11, I-9, I-9
OFD-100A-2.1/ Not on drawing yet.
OFD-100A-3.1/J-4, J-4, I-11, I-11, I-9, I-9

Function: To vent non-compressible gases from the reactor coolant system.

Test Requirement: IWV-3410 Valve Exercise Test

Bases for Relief: Failure of these valves during exercise testing at power operation would constitute a small break LOCA. In addition, stroking these valves at shutdown would release reactor coolant to reactor building ventilation system. This would cause unjustified contamination and radwaste.

Alternate Testing: These valves will be full-stroke exercised at refueling outages.

64. Valve(s): 1C-156
2C-156
3C-156

Category: B

Drawing Number/Coordinate: OFD-121A-1.7/H-7
OFD-121A-2.7/H-7
OFD-121A-3.7/H-7

Function: Normally open to provide suction supply to Turbine Driven Feedwater Pump.

Test Requirement: IWV-3410 Valve Exercise Test

Bases for Relief: Failure of these valves during exercise testing at power operation would result in loss of upper storage tank (suction supply) to the Turbine Driven Feedwater Pump. Piping to the Hotwell (backup supply) is not all seismically qualified.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412.

RELIEF REQUEST BASES CONT'D

65. Valve(s): 1C-391
2C-391
3C-391

Category: B

Drawing Number/Coordinate: OFD-121A-1.8/J-11
OFD-121A-2.8/J-11
OFD-121A-3.8/J-11

Function: In an emergency, should additional source of feedwater through the Turbine Driven Feedwater Pump be desired, these valves would be opened to align the suction to the Hotwell.

Test Requirement: IWV-3410 Valve Exercising Test

Bases for Relief: Opening these valves at power would produce a transient, possible loss of vacuum and a reactor trip.

Alternate Testing: These valves will be full-stroke exercised during cold shutdowns, as allowed by IWV-3412.

66. Valve(s): 1LP-68, 73, 74, 75
2LP-68, 73, 74, 75

Category: B

Drawing Number/Coordinate: OFD-102A-1.1/H-6; OFD-102A-1.2/J-11, J-2, H-2
OFD-102A-2.1/H-5; OFD-102A-2.2/J-11, K-2, I-2

Function: These valves are used in line-up for the Low Pressure Injection Switchover Mode.

Test Requirement: IWV-3410 Valve Exercising Test.

Bases for Relief: These manual valves are used only during switchover. During stroking of these valves, one train of Low Pressure Injection is out of service and not available for E.S.

Alternate Testing: These valves are exercised each cold shutdown, even if it occurs more than once in any 90-day period.

67. Valve(s): 1MS-17, 19, 22, 26, 28, 31
2MS-17, 19, 22, 26, 28, 31
3MS-17, 19, 22, 26, 28, 31

Category: B

RELIEF REQUEST BASES CONT'D

Drawing Number/Coordinate: OFD-122A-1.2/I-5, I-8, K-8, D-5, F-8, D-8
OFD-122A-2.2/I-4, L-8, K-8, D-4, F-8, D-8
OFD-122A-3.2/I-4, I-8, K-8, D-4, F-8, D-8

Function: Main Steam Bypass Valves

Test Requirement: IWV-3410 Valve Exercising Test

Bases for Relief: Stroke exercising these valves at power would require closing manual isolation valves which would, with a 900 PSIA differential pressure across them, probably not reopen. This would, in event of a turbine trip, eliminate our bypass capability.

Alternate Testing: These valves will be full-stroke exercised at cold shutdown.

68. Valve(s): 1LP-31
2LP-31
3LP-31

Category: C

Drawing/Number/Coordinates: OFD-102A-1.2/K-5
OFD-102A-2.2/K-5
OFD-102A-3.2/K-5

Function: Prevent back flow to the "A" Low Pressure Injection Pump.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: To test the "A" Low Pressure Injection (LPI) Header at power, it must be recirculated to the BWST. The flow rate which can be obtained under test conditions is approximately 1000 GPM. Since there is no direct, external indication of valve position, there is no means for determining if the valves are full-stroke exercised at this flow rate.

Alternate Testing: These valves will be partial-stroke exercised quarterly and full-stroke exercised when the test is run in the decay heat mode.

69. Valve(s): 1FDW-370, 380
2FDW-370, 380
3FDW-370, 380

Category: C

Drawing Number/Coordinates: OFD-121D-1.1/K-3, D-3
OFD-121D-2.1/K-3, D-4
OFD-121D-3.1/K-4, D-4

RELIEF REQUEST BASES CONT'D

Function: These valves normally prevent backflow from the feedwater line to the emergency feedwater pump. In an emergency they open to allow flow from the emergency feedwater pump to the normal and emergency feedwater nozzles. In addition, they allow for minimum recirculation to prevent pump damage if flow is restricted.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: The emergency feedwater pump supplies unheated condensate to the steam generators. Therefore, exercising these valves at power would create undue thermal stresses on the steam generator tubes. In addition, the introduction of oxygen saturated water into the steam generators during a cold shutdown would delay startup.

Alternate Testing: These valves will be full-stroke exercised at refueling outages. These valves are also full stroke-exercised each three months in recirc. during the pump test.

70. Valve(s): 1LP-55, 57
2LP-55, 57
3LP-55, 57

Category: C

Drawing Number/Coordinates: OFD-101A-1.3/K-3, C-3
OFD-101A-2.3/K-3, C-3
OFD-101A-3.3/K-3, D-1

Function: Supply HPI Pump Suction from the Reactor Building Emergency Sump via Low Pressure Injection/Decay Heat Removal System.

Test Requirement: IWV-3520 Test for Check Valves.

Bases for Relief: The piping served by these valves contains highly borated water from the BWST. Exercising these valves either at power or in normal cold shutdown condition would cause injection of highly borated water into the Reactor Coolant System, possibly causing a shutdown or requiring extensive feed and bleed prior to restart of the unit. These can only be stroked with a 100 GPM flow to prevent damage to the HPI Pumps.

Alternate Testing: These valves will be partial stroke-exercised during refueling outages.

71. Valve(s) 1FDW-31, 32, 40, 41
2FDW-31, 32, 40, 41
3FDW-31, 32, 40, 41

Category: B

RELIEF REQUEST BASES CONT'D

Drawing Number/Coordinates: OFD-121B-1.3/J-6, J-7, D-6, D-7
OFD-121B-2.3/J-5, J-6, D-4, D-5
OFD-121B-3.3/J-6, J-7, D-6, D-7

Function: These valves are the main block and control valves to the steam generators.

Test Requirement: IWV-3410 Valve Exercise Testing.

Bases for Relief: Exercising these valves at power would disrupt the feedwater flow and level possibly causing a reactor trip.

Alternate Testing: These valves will be full-stroke exercised at cold shutdown outages.

72. Valve(s): 1MS-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
2MS-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16
3MS-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16

Category: C

Drawing Number/Coordinates: OFD-122A-1.1/J-9, J-4, J-8, J-5, J-8, J-5
J-7, J-6, D-9, D-4, D-8, D-5, D-8, D-5
D-7, D-6

OFD-122A-2.1/J-9, J-4, J-8, J-5, J-8, J-5
J-7, J-6, D-9, D-4, D-8, D-5, D-8, D-5
D-7, D-6

OFD-122A-3.1/J-9, J-4, J-7, J-5, J-8, J-5
J-7, J-6, D-9, D-4, D-7, D-5, D-8, D-5
D-7, D-6

Function: Main Steam Relief Valves

Test Requirement: IWV-3510 Safety and Relief Valve Tests

Clarification of Test Schedule: The number of valves tested at each refueling outage is consistent with Table IWV-3510-1 and IWV-3513.

73. Valve(s): 1RC-67, 68
2RC-67, 68
3RC-67, 68

Category: C

Drawing Number/Coordinate: OFD-100A-1.2/K-7, K-6
OFD-100A-2.2/K-7, K-6
OFD-100A-3.2/K-7, K-6

RELIEF REQUEST BASES CONT'D

Function: Pressurizer Relief to Quench Tank

Test Requirement: IWV-3510 Safety and Relief Valve Tests

Clarification of Test Schedule: These valves are removed and bench tested at least one valve each refueling outage.

74. Valve(s) 1PR-20
2PR-20
3PR-20

Category B

Drawing Number/Coordinates OFD-116A-1.1/G-8
OFD-116A-2.1/G-8
OFD-116B-3.1/G-8

Function: These valves cross connect the output of the filters and input to the fans.

Test Requirement: IWV-3410 Valves Exercise Testing.

Bases for Relief: These valves are required by Technical Specifications to be tested at refueling outages. In addition, the time required for these valves to change position is inconsequential to the operation of the system.

Alternate Testing: These valves will be manually operated to full-stroke at refueling outages.

75. Valve(s): 1CS-73
2CS-73
3CS-73

Category: C

Drawing Number/Coordinates: OFD-101A-1.2/J-12
OFD-101A-2.2/J-12
OFD-101A-3.2/J-12

Function: These valves cross connect the Concentrated Boric Acid Storage Tank (CBAST) to the Letdown Storage Tank (LDST).

Test Requirement: IWV-3520 Tests For Check Valves.

Bases for Relief: The flow through these valves is from the discharge of a positive displacement pump. There is no flow measuring device in this line. Makeup is made to the LDST periodically during operation which would show a problem if the flow begins to decrease.

RELIEF REQUEST BASES CONT'D

Alternate Testing: These valves will be stroked quarterly by running the Positive Displacement Pump.

76. Valve(s): 1C-568
2C-568
3C-568

Category: C

Drawing Number/Coordinates: OFD-121A-1.8/E-5
OFD-121A-2.8/E-5
OFD-121A-3.8/E-5

Function: This valve connects the suction of the motor driven Emergency Feedwater Pump to the Hotwell when the Upper Surge Tank (UST) is isolated.

Test Requirement: IWV-3520 Tests for Check Valves

Bases for Relief: Putting flow through this valve at power would mix high oxygenated cold water with the feedwater flowing into the steam generator causing corrosion and loss of efficiency. Running the pumps using this flow path at shutdown would require breaking vacuum, thereby causing a delay in start-up due to the complex line-up and the extensive chemistry clean-up which would be required.

Alternate Testing: This valve will be full stroke exercised at refueling.

77. Valve(s): 1HPSW-556
2HPSW-556
3HPSW-556

Category: C

Drawing Number/Coordinates: OFD-124C-1.3/Being added per NSM
OFD-124C-2.3/Being added per NSM
OFD-124C-3.3/Being added per NSM

Function: This valve opens on loss of low pressure service water (LPSW) pressure to provide cooling water to the High Pressure Injection (HPI) Pump Motor Coolers.

Test Requirement: IWV-3520 Tests for check valves (pressure sensing valves).

Bases for Relief: Testing this valve requires isolating LPSW Cooling Water from the HPI Motor Coolers. If this valve failed to open it could cause the failure to one or more HPI Pump Motors.

Alternate Testing: This valve will be full stroke exercised at cold shutdown as allowed by IWV-3522.

78. Valve(s): 1MS-153,154,155,156,161,162,163,164
 2MS-153,154,155,156,161,162,163,164
 3MS-153,154,155,156,161,162,163,164

Category: B

Drawing Number/Coordinates: OFD-122A-1.1/J-9,K-9,D-9,E-9,J-9,K-9,E-9,E-9
 OFD-122A-2.1/J-9,K-9,D-9,E-9,J-9,K-9,E-9,E-9
 OFD-122A-3.1/J-9,K-9,D-9,E-9,J-9,K-9,E-9,E-9

Function: In a loss of turbine bypass valve capability, these valves can be opened manually to control the cooldown of the RCS.

Test Requirement: IWV-3410 Valve Exercising Test.

Basis for Relief: Failure of these valves during exercise testing at power operation would result in a loss of main steam to the turbine, causing a reactor trip.

Alternate Testing: These valves will be full-stroke exercised during cold shutdown, as allowed by IWV-3412.

79. Valve(s): 1CCW-105, 321
 2CCW-113, 152
 3CCW-121, 254

Category: C

Drawing Number/Coordinates: OFD-121D-1.2/H-10, I-13
 OFD-121D-1.2/H-7, I-9
 OFD-121D-1.2/H-3, I-6

Function: These valves normally prevent backflow from the emergency feedwater line to the auxiliary service water pump. In an emergency they open to allow flow from the auxiliary service water pump to the emergency feedwater nozzles.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: The auxiliary service water pump supplies unheated lake water to the steam generators. Therefore, exercising these valves at power would create undue thermal stresses on the steam generator tubes. In addition, the introduction of lake water into the steam generators during a cold shutdown or a refueling outage would require extensive cleanup thereby, would delay startup.

Alternate Testing: None proposed

80. Valve(s): 1FDW-93, 95
2FDW-93, 95
3FDW-95, 93

Category: C

Drawing Number/Coordinates: OFD-121D-1.1/H-6, F-6
OFD-121D-2.1/H-6, F-6
OFD-121D-3.1/H-6, F-6

Function: These valves normally prevent backflow from the motor driven emergency feedwater pumps to the turbine driven emergency feedwater pump. In an emergency they open to allow flow from the turbine driven emergency feedwater pump to the normal feedwater nozzles.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: The emergency feedwater pump supplies unheated condensate to the steam generators. Therefore, exercising these valves at power would create undue thermal stresses on the steam generator tubes. In addition, the introduction of oxygen saturated water into the steam generators during a cold shutdown would delay startup.

Alternate Testing: These valves will be full-stroke exercised at refueling outages.

81. Valve(s): 1FDW-99, 101
2FDW-99, 101
3FDW-99, 101

Category: C

Drawing Number/Coordinates: OFD-121D-1.1/H-8, F-8
OFD-121D-2.1/H-8, F-8
OFD-121D-3.1/H-8, F-7

Function: These valves normally prevent back flow from the feedwater line to the emergency feedwater pumps. In an emergency they open to allow flow from the emergency feedwater pumps to the normal feedwater nozzles.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: The emergency feedwater pumps supply unheated condensate to the steam generators. Therefore, exercising these valves at power would create undue thermal stresses on the steam generator tubes. In addition, the introduction of oxygen saturated water into the steam generators during a cold shutdown would delay startup.

Alternate Testing: These valve will be full-stroke exercised at refueling outages.

82. Valve(s): 1FDW-375, 385
2FDW-375, 385
3FDW-375, 385

Category: C

Drawing Number/Coordinates: OFD-121D-1.1/I-6, D-6
OFD-121D-2.1/J-6, D-6
OFD-121D-3.1/H-7, D-6

Function: These valves normally prevent back flow from the turbine driven emergency feedwater pumps to the motor driven emergency feedwater pump. In an emergency they open to allow flow from the motor driven emergency feedwater pump to the normal feedwater nozzles.

Test Requirement: IWV-3520 Tests for Check Valves.

Bases for Relief: The emergency feedwater pump supplies unheated condensate to the steam generators. Therefore, exercising these valves at power would create undue thermal stresses on the steam generator tubes. In addition, the introduction of oxygen saturated water into the steam generators during a cold shutdown would delay startup.

Alternate Testing: These valve will be full-stroke exercised at refueling outages.

83. Valve(s): 1HP-355, 472
2HP-355, 472 (To be added by NSM later)
3HP-355, 472 (To be added by NSM later)

Category: B

Drawing Number/Coordinate: OFD-101A-1.4/L-6, L-5
OFD-101A-2.4/Unknown
OFD-101A-3.4/Unknown

Function: In an emergency these valves can be throttled open to allow spray down of the pressurizer to allow cooldown of the unit.

Test Requirement: IWV-3410 Valve Exercise Testing.

Basis for Relief: Failure of these valves during Exercise Testing at Power Operation would result in introducing cold water to the pressurizer spray nozzle causing thermal stress and a transient.

Alternate Testing: These valves will be full-stroke exercised during cold shutdown, as allowed by IWV-3412.

84. Valve(s): 1V-186
2V-186
3V-186

Category: B

Drawing Number/Coordinates: OFD-121C-1.1/I-14
OFD-121C-2.1/I-14
OFD-121C-3.1/I-14

Function: These valves are normally closed. In an emergency they open to break vacuum and allow the Motor Driven Emergency Feedwater Pumps to take suction off the Hotwell Tank.

Test Requirement: IWV-3410 Valve Exercise Testing.

Basis for Relief: Opening these valves at Power would cause a unit trip. In addition, breaking vacuum at shutdown would delay startup.

Alternate Testing: These valves will be full-stroke exercised at refueling outages.

85. Valve(s): CCW-101
1CCW-102, 103, 104, 105, 106, 107, 108
2CCW-110, 111, 112, 114, 115, 116
3CCW-118, 119, 120, 122, 123, 124

Category: B

Drawing Number/Coordinates: OFD-121D-1.2/E-4
OFD-121D-1.2/G-11, G-11, H-10, G-12, H-13
OFD-121D-1.2/G-8, G-7, H-7, G-9, G-9, H-9
OFD-121D-1.2/G-4, G-4, H-3, G-5, G-6, H-6

Function: These valves when open allow the discharge of the Auxiliary Service Water Pump to feed the steam generators following a loss of normal Feedwater and all emergency feedwater systems.

Test Requirements: IWV-3410 Valve Exercising Test

Basis for Relief: Failure of these manual valves to tightly close during exercise testing would allow untreated lake water to flow into the Steam generators during the next Auxiliary Service Water Pump Surveillance Test. Untreated lake water could cause detrimental effects to the metal in the steam generators.

Alternate Testing: None proposed.

86. Valve(s): 1C-573
2C-573
3C-573

Category: B

Drawing Number/Coordinates: OFD-121A-1.8/E-7
OFD-121A-2.8/D-6
OFD-121D-3.8/E-7

Function: These valves are normally locked open to provide suction to the Motor Driven Emergency (MDEFDW) pumps from the Upper Surge Tank (UST). In an emergency following breaking vacuum they can be closed to align the MDEFDW pump suction to the Hotwell.

Test Requirement: IWV-3410 Valve Exercise Test.

Bases for Relief: Stroking these valves at Power Operation would require removing both trains of the MDEFDW system from services.

Alternate Testing: These valves will be full stroke exercised during cold shutdown, as allowed by IWV-3412.

87. Valve(s): CCW-100

Category: C

Drawing Numbers/Coordinators: OFD-121-1.2/E-4

Function: Prevent back flow to the Auxiliary Service Water Pump

Test Requirement: IWV-3520 Test for Check Valves

Bases for Relief: To test the Auxiliary Service Water Pump, a minimum recirculation line must be used to prevent putting untreated lake water in the generators. There is no flow indication for this pump and, since there is not direct, external indication of valve position there is no means for determining if the valve is full-stroke exercised.

Alternate Testing: None proposed

88. Valve(s): 1N-106, 107, 146

Category: A

Drawing Number/Coordinates: OFD-127B-1.2/E-4,F-4,E-10

Function: Nitrogen blanketing header isolation valves.

Test Requirement: IWV-3410 Valve Exercising Test

Bases for Relief: These are passive manual, normally closed valves and are therefore excluded from exercise testing per IWV-1200.

Alternate Testing: None proposed

89. Valve(s): 1LRT-17

Category: A

Drawing Number/Coordinates: OFD-137E-1.1/K-10

Function: Integrated Leak Rate compressors isolation valves

Test Requirement: IWV-3410 Valve Exercising Test

Bases for Relief: These are passive pneumatic, normally deenergized closed valves and are therefore excluded from exercise testing pr IWV-1200.

Alternate Testing: None Proposed

90. Valve(s): 1LWD-99, 103
2LWD-99, 103
3LWD-99, 103

Category: A

Drawing Number/Coordinates: OFD-107D-1.2/E-9, E-9
OFD-107D-2.2/G-8, G-8
OFD-107D-3.2/G-3, G-3

Function: Reactor building emergency sump to waste tank penetration isolation valves.

Test Requirement: IWV-3410 Valve Exercise Test and
IWV-3420 Valve Leak Rate Test

Bases for Relief: These are passive manual, normally closed valves and not required to be exercise tested per IWV-1300. Exemption from leak rate testing per 10CFR50, Appendix J, has been granted the line doesn't have adequate isolation and test provisions to perform leak rate testing.

Alternate Testing: None proposed.

91. Valve(s): 2CF-34, 35, 36
3CF-34, 35, 36

Category: A

Drawing Number/Coordinates: OFD-102A-2.3/J-7, I-4, I-4
OFD-102A-3.3/J-7, I-4, I-4

Function: Core flood tank vent to vent header penetration isolation valves.

Test Requirement: IWV-3410 Valve Exercise Test
IWV-3420 Valve Leak Rate Test

Buses for Relief: These are passive, manual, normally closed valves, and are therefore excluded from exercise testing per IWV-1300. In addition, failure in the open position could result in loss of penetration isolation. Exemption from leak testing has been granted. The line doesn't have adequate isolation and test provisions to perform leak rate testing.

Alternate Testing: None proposed.

92. Valve(s): (Reactor Vessel) Eight Internal Check (Vent) Valves (All Three Units)

Category: C

Drawing Number/Coordinates: No OFD Drawings Assigned

Function: These valves allow flow out a cold leg in event of a rupture.

Test Required: IWV-3520 Tests for Check Valves

Clarification of Test Schedule: These valves are only accessible with the reactor head removed; they are tested at refueling outages.

Valves which have NRC approval for alternate testing or exemption from the Surveillance Program are listed in this section.

UNIT 1		UNIT 2		UNIT 3	
1LP-55	1LP-57	2LP-55	2LP-57	3LP-55	3LP-57

TABLE I The alternate testing for these valves was approved at a 1979 meeting with Mr. Vic Nerses.

UNIT 1		UNIT 2		UNIT 3	
1CC-7	1CC-8	2CC-7	2CC-8	3CC-7	3CC-8
1FDW-33	1FDW-35	2FDW-33	2FDW-35	3FDW-33	3FDW-35
1FDW-36	1FDW-38	2FDW-36	2FDW-38	3FDW-36	3FDW-38
1FDW-42	1FDW-44	2FDW-42	2FDW-44	3FDW-42	3FDW-44
1FDW-45	---	2FDW-45	---	3FDW-45	---
1FDW-47	1HP-5	2FDW-47	2HP-5	3FDW-47	3HP-5
1HP-20	1HP-21	2HP-20	2HP-21	3HP-20	3HP-21
1HP-26	1HP-120	2HP-26	2HP-120	3HP-26	3HP-120
1HP-409	1HP-410	2HP-409	2HP-410	3HP-409	3HP-410
1LP-1	1LP-2	2LP-1	2LP-2	3LP-1	3LP-2
1LP-17	1LP-18	2LP-17	2LP-18	3LP-17	3LP-18
1LP-47	1LP-48	2LP-47	2LP-48	3LP-47	3LP-48
1LP-103	1LP-104	2LP-103	2LP-104	3LP-103	3LP-104
1LP-105	1LPSW-6	---	2LPSW-6	---	3LPSW-6
1LPSW-7	1LPSW-8	2LPSW-7	2LPSW-8	3LPSW-7	3LPSW-8
1LPSW-9	1LPSW-10	2LPSW-9	2LPSW-10	3LPSW-9	3LPSW-10
1LPSW-11	1LPSW-12	2LPSW-11	2LPSW-12	3LPSW-11	3LPSW-12
1LPSW-13	1LPSW-14	2LPSW-13	2LPSW-14	3LPSW-13	3LPSW-14
1LPSW-15	1MS-102	2LPSW-15	2MS-102	3LPSW-15	3MS-102
1MS-103	1MS-104	2MS-103	2MS-104	3MS-103	3MS-104
1MS-105	---	2MS-105	---	3MS-105	---

TABLE II The alternate testing for these valves was approved in 1.1.5 of Amendment 109 (License No's. DPR-38 and DPR-47) and Amendment 106 (License No. DPR-55).

UNIT 1		UNIT 2		UNIT 3	
1CS-5	1GWD-12	2CS-5	2GWD-12	3CS-5	3GWD-12
---	1LWD-2	2LWD-1	---	3LWD-1	---
1PR-7	1PR-9	2PR-7	2PR-9	3PR-7	3PR-9

TABLE III The alternate testing for these valves was approved in 1.1.9 of Amendment 109 (License No's. DPR-38 and DPR-42 and Amendment 106 (License No. DPR-55).

UNIT 1		UNIT 2		UNIT 3	
1BA-5	1BA-33	2BA-5	2BA-33	3BA-5	3BA-33
1BS-5	1BS-6	2BS-5	2BS-6	3BS-5	3BS-6
1BS-11	1BS-14	2BS-11	2BS-14	3BS-11	3BS-14
1BS-16	1BS-19	2BS-16	2BS-19	3BS-16	3BS-19
1CA-27	1CA-29	2CA-27	2CA-29	3CA-27	3CA-29
1CC-20	1CC-24	2CC-20	2CC-24	3CC-20	3CC-24
1CC-76	1CC-77	2CC-76	2CC-77	3CC-76	3CC-77
1CF-4	1CF-7	2CF-4	2CF-7	3CF-4	3CF-7
1CF-11	1CF-12	2CF-11	2CF-12	3CF-11	3CF-12
1CF-13	1CF-14	2CF-13	2CF-14	3CF-13	3CF-14
1CF-19	---	2CF-19	2CF-34	3CF-19	3CF-34
---	---	2CF-35	2CF-36	3CF-35	3CF-36
1CS-11	1CS-12	2CS-11	2CS-12	3CS-11	3CS-12
1DW-59	1DW-60	2DW-59	2DW-60	3DW-59	3DW-60
1FDW-39	1FDW-48	2FDW-39	2FDW-48	3FDW-39	3FDW-48
1FDW-103	1FDW-104	2FDW-103	2FDW-104	3FDW-103	3FDW-104
1FDW-232	1FDW-233	2FDW-232	2FDW-233	3FDW-232	3FDW-233
1FW-64	1FW-65	2FW-64	2FW-65	3FW-64	3FW-65
1HP-101	1HP-102	2HP-101	2HP-102	3HP-101	3HP-102
1HP-105	1HP-109	2HP-105	2HP-109	3HP-105	3HP-109
1HP-113	1CF-3	2HP-113	2CF-3	3HP-113	3CF-3
1HP-126	1HP-127	2HP-126	2HP-127	3HP-126	3HP-127
1HP-152	1HP-153	2HP-152	2HP-153	3HP-152	3HP-153
1HP-155	1HP-156	2HP-155	2HP-156	3HP-155	3HP-156
1HP-188	1HP-194	2HP-188	2HP-194	3HP-188	3HP-194
1IA-90	1IA-91	2IA-90	2IA-91	3IA-90	3IA-91
1LP-29	1LP-30	2LP-29	2LP-30	3LP-29	3LP-30
1LRT-24	1LRT-25	2LRT-24	2LRT-25	3LRT-24	3LRT-25
---	---	2LRT-36	2LRT-37	3LRT-36	3LRT-37
1LRT-38	1LRT-39	2LRT-38	2LRT-39	3LRT-38	3LRT-39
1LWD-99	1LWD-103	2LWD-99	2LWD-103	3LWD-99	3LWD-103
1N-106	1N-107	2N-106	2N-107	3N-106	3N-107
1N-116	1N-119	2N-116	2N-119	3N-116	3N-119
1N-128	1N-130	2N-128	2N-130	3N-128	3N-130
1SF-60	1SF-61	2SF-60	2SF-61	3SF-60	3SF-61

TABLE IV The alternate testing or exemption from testing was approved in safety evaluation by the Office of Nuclear Reactor Regulation supporting Amendment No. 109 to Facility Operating License No. DPR-38, Amendment 109 to Facility Operating License No. DPR-47, and Amendment No. 106 to Facility Operating License No. DPR-55.

APPENDIX A

Valves which were formerly Category E are now categorized B. These valves are passive and will at power remain locked in the position indicated.

1CF-1	Open	2CF-1	Open	3CF-1	Open
1CF-2	Open	2CF-2	Open	3CF-2	Open
1CF-5	Shut	2CF-5	Shut	3CF-5	Shut
1CF-6	Shut	2CF-6	Shut	3CF-6	Shut
1LP-28	Open	2LP-28	Open	3LP-28	Open
1LPSW-108	Open	2LPSW-108	Open	3LPSW-108	Open
SSF-1CCW-109	Open	SSF-2CCW-117	Open	SSF-3CCW-125	Open

Valves which were formerly Category B/E are now categorized B. These valves will remain locked shut at power.

1PR-3	2PR-3	3PR-3
1PR-4	2PR-4	3PR-4

Valves which were formerly Category A/E are now categorized A. These valves will remain locked shut at power.

1PR-1	2PR-1	3PR-1
1PR-2	2PR-2	3PR-2
1PR-5	2PR-5	3PR-5
1PR-6	2PR-6	3PR-6

APPENDIX B

PASSIVE VALVES NOT REQUIRED TO BE IN THE INSERVICE INSPECTION PROGRAM

<u>Valve No.</u>	<u>Position</u>	<u>Valve No.</u>	<u>Position</u>	<u>Valve No.</u>	<u>Position</u>
1BS-3	Open	2BS-3	Open	3BS-3	Open
1BS-4	Open	2BS-4	Open	3BS-4	Open
1C-158	Open	2C-158	Open	3C-158	Open
1DW-42	Open	- - -	- - -	3DW-42	Open
1FDW-368	Open	2FDW-368	Open	3FDW-368	Open
1FDW-369	Open	2FDW-369	Open	3FDW-369	Open
1FDW-372	Open	2FDW-372	Open	3FDW-372	Open
1FDW-382	Open	2FDW-382	Open	3FDW-382	Open
1LP-38	Closed	2LP-38	Closed	- - -	- - -
1LP-65	Open	2LP-65	Open	3LP-65	Open
1LP-94	Closed	2LP-94	Closed	- - -	- - -
1LPSW-1	Open	- - -	- - -	- - -	- - -
1LPSW-2	Open	- - -	- - -	- - -	- - -
1LPSW-3	Open	- - -	- - -	- - -	- - -
1LPSW-77	Shut	2LPSW-77	Shut	3LPSW-77	Open
1LPSW-78	Shut	2LPSW-78	Shut	3LPSW-78	Open
- - -	- - -	- - -	- - -	- - -	- - -
- - -	- - -	- - -	- - -	- - -	- - -
1A-1364	Open	- - -	- - -	3LPSW-120	Open
1A-1385	Open	- - -	- - -	3LPSW-123	Open
1A-2432	Open	- - -	- - -	3IA-2432	Open
1RC-84	Open	2RC-84	Open	3RC-84	Open

APPENDIX C

COMMENTS FOR NOT ADDING SPECIFIC VALVES TO THE INSERVICE INSPECTION PROGRAM

Valve(s): 1HP-23, 97
2HP-23, 97
3HP-23, 97

Comment: These valves provide no safety function in an accident condition. Should HP-23 and HP-97 fail open in an event where the BWST is providing suction to the HPI pumps, some flow could go into the letdown storage tank, which would then be available to supply the HPI pumps.

Valve(s): 1FDW-37, 96
2FDW-37, 96
3FDW-37, 96

Comment: In event of steam line break, operators would by procedure isolate the steam generators by closing FDW-31, 32 and FDW-40, 41.

APPENDIX D

Valves which are not required to be listed in our inservice inspection program which could affect the outcome of our local leak rate testing on Unit 1.

UNIT 1

Test Pressure Boundary

1CC-3	1CC-4	1CC-5	1CC-6	1CC-44	1CC-48
1CC-53	1CC-67	1CC-68	1CC-70	1CC-78	1CC-79
1CC-84	1CC-85	- - -	1CS-13	1CS-145	1CS-146
1DW-262	1DW-266	1DW-267	1FDW-147	- - -	1FDW-149
1FDW-212	- - -	1FDW-214	1HP-1	1HP-2	1HP-329
1HP-359	1HP-361	- - -	1HP-412	1HP-417	- - -
1LPSW-8	- - -	1LPSW-10	1LPSW-12	- - -	1LPSW-14
1RC-73	1RC-74	1RC-84	1SF-101	- - -	- - -

UNIT 2

Test Pressure Boundary

2CC-3	2CC-4	2CC-5	2CC-6	2CC-44	2CC-48
2CC-53	2CC-67	2CC-69	2CC-70	2CC-78	2CC-79
2CC-84	2CC-85	- - -	2CS-13	2CS-145	2CS-146
2DW-262	- - -	- - -	2FDW-147	- - -	2FDW-149
2FDW-212	- - -	2FDW-214	2HP-1	2HP-2	2HP-329
2HP-359	2HP-361	- - -	2HP-385	2HP-387	- - -
2HP-412	2HP-417	- - -	2LPSW-8	- - -	2LPSW-10
2LPSW-12	- - -	2LPSW-14	2RC-73	2RC-74	2RC-84
2SF-101	- - -	- - -	- - -	- - -	- - -

UNIT 3

Test Pressure Boundary

3CC-3	3CC-4	3CC-5	3CC-6	3CC-44	3CC-48
3CC-53	3CC-70	3CC-78	3CC-79	3CC-85	- - -
3CS-13	3CS-145	3CS-147	3DW-262	- - -	- - -
3FDW-147	- - -	3FDW-149	3FDW-212	- - -	3FDW-214
3HP-1	3HP-2	3HP-329	3HP-359	3HP-361	- - -
3HP-412	3HP-417	- - -	3LPSW-8	- - -	3LPSW-10
3LPSW-12	- - -	3LPSW-14	3RC-73	3RC-74	3RC-84
3SF-101	- - -	- - -	- - -	- - -	- - -