

**FLORIDA POWER CORPORATION**

**CRYSTAL RIVER UNIT 3**

**ASME SECTION XI**

**PUMP AND VALVE PROGRAM**

**INSERVICE INSPECTION**

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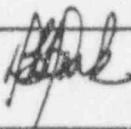
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## EXHIBIT 1

PUMP & VALVE MANUAL REVISION HISTORY				
Revision Number	Interim Change Number	Reason for Revision	Date Entered	Entered By
14	n/a	This Revision incorporates all changes	4/24/95	
		resulting from the development of the IST		
		Basis Document and completion of the		
		Action Plan Steps of Problem Report		
		94-0008. Interim Changes 1, 2, and 3 of		
		Revision 13 of this Manual are also		
		incorporated. A description of the changes		
		incorporated by this revision is as follows:		
		Section 1.0 - Introduction; A general rewrite		
		of this Section was performed. Reference to		
		NEP-115 was added as the controlling		
		reference for this manual, A Background		
		Section was added describing Manual		
		development, and a Basis Section was		

PUMP & VALVE MANUAL REVISION HISTORY				
Revision Number	Interim Change Number	Reason for Revision	Date Entered	Entered By
14 (cont.)		added describing IST System Requirements.		
		A Section was also added describing the		
		Manual Revision process and includes		
		associated required forms.		
		Section 2.0 - Pump Testing; A general		
		re-write of this section was performed.		
		DFP-1C and DFP-1D were removed from		
		Table 1, Pump Testing.		
		Section 3.0 - Valve Testing; A general		
		re-write of this section was performed.		
		Sections were added to discuss testing		
		of the Reactor Vessel Internal Vent Valves		
		and RC System High Point Vents. A new		
		Test Method, PVPI, was added for position		

PUMP & VALVE MANUAL REVISION HISTORY				
Revision Number	Interim Change Number	Reason for Revision	Date Entered	Entered By
14 (cont.)		verification of passive valves. Valve/Table		
		Cross Reference was deleted. Valve Tables		
		1 and 2 were combined into a new Valve		
		Table 1. Valve Table 3 was revised to agree		
		with the IST Basis Document and		
		re-numbered as Valve Table 2.		
		See Attachment 1 for Components in		
		in the previous Valve Tables 1 and 2		
		which were affected by this revision.		
		Section 4.0 -Relief Requests; Relief		
		Requests V-112 and DF-91-01 were revised		
		to delete DFP-1C and 1D. Relief Request		
		V-120 was withdrawn. Relief Requests		
		V-030, V-080, V-129, V-191, V-220 and		
		V-221 were revised for clarification		
		and to address anomalies as discussed in		
		NRC to FPC Letter 3N0393-06 dated		
		March 12, 1993.		

PUMP & VALVE MANUAL REVISION HISTORY				
Revision Number	Interim Change Number	Reason for Revision	Date Entered	Entered By
14 (cont.)		Relief Request /-360 was revised to include		
		additional valves.		
		Section 5.0 - Cold Shutdown Justifications;		
		The following Cold Shutdown Justifications		
		were added: CS-140, CS-153. CS-240 was		
		withdrawn. The following Cold Shutdown		
		Justifications were revised for clarification:		
		CS-122, CS-060, CS-120, CS-121,		
		CS-190, CS-211, CS-212, CS-213,		
		CS-220, CS-221, CS-223, CS-224,		
		CS-225, CS-226, CS-281.		

ATTACHMENT 1  
PUMP AND VALVE PROGRAM MANUAL  
REVISION 14 VALVE CHANGES

THE FOLLOWING VALVES, AND ASSOCIATED SURVEILLANCE REQUIREMENTS, WERE REMOVED FROM THE PUMP AND VALVE PROGRAM MANUAL:

BSV-5	BSV-6	BSV-11
BSV-12	BSV-19	BSV-20
BSV-150	BSV-151	CAV-57
CAV-60	DCV-23	DCV-24
DFV-58	DFV-59	DHV-17
DHV-28	DHV-48	DJV-15
DJV-16	DOV-118	DOV-119
DOV-210	DOV-233	DOV-238
EFV-12	EFV-13	EGV-25
EGV-26	MUV-19	MUV-20
MUV-21	MUV-22	MUV-61
MUV-67	MUV-71	MUV-75
MUV-76	MUV-85	MUV-86
MUV-103	MUV-137	MUV-139
MUV-150	MUV-153	MUV-162
MUV-178	MUV-265	MUV-267
SFV-54	SFV-85	SFV-87
SFV-89	SWV-278	SWV-364
SWV-367	SWV-368	SWV-369
SWV-371	SWV-374	SWV-378
SWV-382	SWV-386	WDV-387
WDV-388	WDV-389	

THE FOLLOWING VALVES, AND ASSOCIATED SURVEILLANCE REQUIREMENTS, WERE ADDED TO THE PUMP AND VALVE PROGRAM MANUAL:

BSV-16	BSV-17	CFV-5
CFV-6	DHV-39	DHV-40
DHV-69	DHV-70	DHV-75
DHV-76	DHV-105	DHV-106
DFV-23	DFV-24	DFV-45
DFV-46	DLV-13	DLV-14
DLV-17	DLV-18	EGV-35
EGV-39	FWV-34	FWV-35
MUV-3	MUV-9	RWV-150
SWV-12		



THE FOLLOWING VALVES' ASSOCIATED SURVEILLANCE REQUIREMENTS HAVE BEEN CHANGED  
IN THE PUMP AND VALVE PROGRAM MANUAL:

AHV-1A (ADDED PVPI PER SP-177)  
AHV-1B (ADDED PVPI PER SP-177)  
AHV-1C (ADDED PVPI PER SP-177)  
AHV-1D (ADDED PVPI PER SP-177)  
CAV-429 (ADDED PVPI PER SP-179C)  
CAV-430 (ADDED PVPI PER SP-179C)  
CAV-432 (ADDED PVPI PER SP-179C)  
CAV-433 (ADDED PVPI PER SP-179C)  
CAV-434 (ADDED PVPI PER SP-179C)  
CAV-435 (ADDED PVPI PER SP-179C)  
CAV-436 (ADDED PVPI PER SP-179C)  
CFV-1 (ADDED SP-405)  
CFV-2 (ADDED SP-405)  
CFV-3 (ADDED SP-405)  
CFV-4 (ADDED SP-405)  
CHV-95 (ADDED SP-375A)  
CHV-97 (ADDED SP-435, DELETED SP-375A)  
CHV-101 (ADDED SP-435, DELETED SP-375A)  
DWV-160 (ADDED SP-435, DELETED SP-370)  
FWV-29 (DELETED SP-332 ONLY)  
FWV-30 (DELETED SP-332 ONLY)  
FWV-31 (DELETED SP-332 ONLY)  
FWV-32 (DELETED SP-332 ONLY)  
FWV-33 (DELETED SP-332 ONLY)  
FWV-36 (DELETED SP-332 ONLY)  
MUV-60 (ADDED SP-630)  
MUV-62 (DELETED SP-340F, ADDED SP-435)  
MUV-69 (DELETED SP-340F, ADDED SP-435)  
MUV-65 (DELETED SP-340F ONLY)  
MUV-72 (ADDED SP-630)  
RCV-10 (ADDED SP-379 AND PT-149, DELETED SP-118)

# **PUMP AND VALVE PROGRAM INSERVICE TESTING CRYSTAL RIVER UNIT-3**

## **1.0 Introduction**

This Inservice Testing Pump and Valve Program Manual, referenced elsewhere as the "Manual" establishes and defines the Inservice Pump and Valve Testing Program for the ten year interval from March 14, 1987, through March 15, 1997. This program was developed as required by Title 10 Code of Federal Regulations Part 50 Paragraph 50.55a(g), in accordance with the ASME Boiler and Pressure Vessel Code - Section XI - "Rules for Inservice Inspection of Nuclear Power Plant Components", referred in this document as simply the "Code". This Manual provides a listing of the appropriate Crystal River Unit #3 (CR-3) surveillance procedure (SP) used for performing each test in the program. The Manual also presents information on pumps and valves that have been granted relief or have been exempted by the Nuclear Regulatory Commission because testing cannot be performed in accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, Subsections IWP and IWV, 1983 Edition through Summer 1983 Addenda. Cold Shutdown Justifications are also provided for those components that can only be tested when CR-3 is in a cold shutdown condition.

## **1.1 Purpose**

The purpose of this Inservice Testing (IST) Pump and Valve Program is to verify operational readiness of those pumps and valves which are required to accomplish specified safety functions or tasks, as identified within various plant safety analyses.

This Manual describes the Inservice Testing Pump and Valve Program which is implemented by referenced procedures. This Manual is not an implementing document for performing inservice testing of components. It is intended to provide guidance and reference to those implementing procedures and is intended for use in maintaining the program status, providing reference to Maintenance Planning and ISI/IST personnel, and to provide a description of the content of the program to regulatory authorities.

The controlling reference for this Manual is NEP-115, Control of Nuclear Engineering Manuals.

## 1.2 Program Description

The Program ensures Code testing requirements are met for those pumps as defined by the 1983 Edition of ASME Section XI paragraph IWP-1100 except as excluded by paragraph IWP-1200, and those valves as defined by the 1983 Edition of ASME Section XI Paragraph IWV-1100 except as excluded by paragraph IWV-1200. It also provides assurance for those components for which relief from testing requirements has been granted that the required alternate inspection or testing is implemented.

Inservice pump and valve testing shall be performed in accordance with ASME Boiler and Pressure Vessel Code - Section XI Division 1, Subsections IWP & IWV to the extent practicable within limits of design, geometry and materials of construction of the components. The guidelines of the ASME/ANSI OM Code, NRC Generic Letter 89-04 and the minutes of the public meetings regarding Generic Letter 89-04 have also been used in the development of this program.

Where a Code test requirement is determined to be impractical, the Manual identifies applicable Relief Requests or Cold Shutdown Justifications which describe the bases for determination and alternative test methods and/or frequencies.

In addition to those pumps and valves required to be tested by the Code, other components may be included in the program from a good engineering and management practice standpoint. These components need not be tested to specific Code criteria.

The guidance provided by the " Minutes of the Public Meetings on Generic Letter 89-04" and Draft NUREG 1482, "Guidelines for Inservice Testing at Nuclear Power Plants", will be followed for determination of Program changes that should not be implemented prior to review and approval by the Nuclear Regulatory Commission.

The Manual and/or implementing procedures shall be revised as necessary following applicable changes to Technical Specifications, or plant modifications.

If the revised program conflicts with Technical Specifications, an amendment of Technical Specifications shall be submitted to eliminate the conflict.

The interpretation of the Code relative to this Program and content of the Program is the responsibility of Supervisor, Nuclear Plant Technical Support, ISI/OTSG Section.

This Manual is divided into four additional sections, as follows:

- Section 2.0, Pump Testing - Provides a listing of the pumps included in the Program which are tested in accordance with ASME Code Section XI and provides selected hydraulic and mechanical characteristics.
- Section 3.0, Valve Testing - Provides a listing of the valves included in the program which are tested in accordance with ASME Code Section XI or granted relief and those exempted from testing. It provides additional information such as valve category, active or passive, test methods, frequency etc.
- Section 4.0, Relief Requests - Provides a listing and includes Relief Requests for those pumps and valves which cannot be tested in accordance with specific Code requirements. It states why the test cannot be performed and provides a schedule for alternative testing.
- Section 5.0, Cold Shutdown Justifications - Provides the listing and includes Cold Shutdown Justifications for the valves that cannot be tested during normal operation. It also provides the basis for not testing these valves during operation and describes the testing currently being performed.

### 1.3 Definitions

Active Valves - valves required to change obturator position to accomplish a safety function.

Check Valve Closure Test - a test to prove a check valve, with a safety function in the closed position, will close or is closed upon cessation or reversal of flow.

Check Valve Full-Open - a test to prove a check valve with a safety function in the open position can pass the maximum analyzed accident flow.

Exercising - the demonstration based on direct or indirect visual or other positive indication that the moving parts of a valve function satisfactorily.

Full Stroke Time - the time interval of a power operated valve measured from initiation of the actuating signal to the end of the actuating cycle. ("switch to light")

Inservice Test - a special test for obtaining, through measurement or observation, information to determine the operational readiness of a pump or valve. (These tests are not designed to establish complete component performance. They are to determine the general condition of a component such as the performance of a pump at one operating point from test to test.)



Maintenance - routine servicing or work undertaken to correct or prevent an abnormal or unsatisfactory condition.

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

Operational Readiness - the capability of a pump or valve to fulfill its safety function.

Passive Valves - valves that maintain obturator position and are not required to change obturator position to accomplish required safety functions.

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

Symmetrical Averaging Technique - a technique used to average values on instrumentation that may be fluctuating as a result of either mechanical or hydraulic characteristics.

System Resistance - the hydraulic resistance to flow in a system.

#### **1.4 Background - Program Development**

Each ASME Class 1, 2 and 3 pump and valve was evaluated to determine the applicability of the requirements of 10 CFR 50.55a(f) and Plant Technical Specifications.

ASME Safety Class 1, 2 and 3 valves were first evaluated to determine if any of the exclusion criteria of IWP-1200 of Subsection IWV of Section XI of the ASME Boiler and Pressure Vessel Code were applicable. Valves which met the criteria were included in the Exempt Valve List which can be found in Table 2 of Section 3 of this manual.

A standardized, step-by-step approach was then used to determine the applicability of the requirements of IWP and IWV to each pump and to each valve which was not clearly exempt per IWP-1200(a). First, a determination was made as to whether the component was located in a system or portion of a system (i.e., a flowpath) which is required to be operable in order to shut down the Reactor to the Shutdown condition or in mitigating the consequences of an accident. Those which were not, were identified as having no safety function and being outside the Scope of IWP or IWV as defined in IWP-1100 and IWV-1100 and documented in the CR#3 IST Basis Document. These components are not included in this document.



If a valve was determined to be in a safety-related flowpath, or in a branch line coming off a safety related flowpath, a determination was made to determine what function or functions the valve was required to perform in order to assure that the required flow reached its intended destination. The valve was then categorized according to its type and function (Category A, AC, B, C) and as to whether it had to change position in order to accomplish any of the safety functions identified for it (Active vs. Passive). Final categorization of the valve determined which of the testing requirements identified in Subsection IWV applied to the specific valve.

Florida Power Corporation has determined that for skid-mounted components that testing of the major component is an acceptable means of verifying the operational readiness of the skid-mounted components and sub-assemblies. This position is being documented in this Manual per the guidance of NUREG-1482, Paragraph 3.4.

## **1.5 Basis of IST System Requirements**

This Section identifies the specific function or functions of each system at the Crystal River Plant which bring some or all of its components within the Scope of the Inservice Testing Program. Specific functions for each component are identified in subsequent Sections of this Manual.

### **AH: AIR HANDLING SYSTEM**

Components of the Air Handling (AH) System are illustrated on Flow Diagram FD-302-751. Functional requirements are identified in Enhanced Design Basis Document (EDBD) 8/11. The system has no active safety functions; four valves provide the passive function of Containment Isolation during normal operation.

### **AS: AUXILIARY STEAM SYSTEM**

Components of the Auxiliary Steam System are shown on Flow Diagram FD-302-051. Functional requirements are identified in Section 1.2 of Enhanced Design Basis Document (EDBD) 6/16.

The Auxiliary Steam System provides a flow path for steam to the turbine of the turbine-driven Emergency Feedwater Pump.

### BS: REACTOR BUILDING SPRAY SYSTEM

Components of the Reactor Building Spray System are shown on Flow Diagram FD-302-711. Functional requirements of the Reactor Building Spray System are identified in Section 1.2 of Enhanced Design Basis Document 6/4. The following functions comprise the basis for its inclusion in the Inservice Testing (IST) Program:

The Reactor Building Spray System provides a means of reducing the pressure and temperature inside Containment following a large break LOCA or a Main Steam or Feedwater line break in order to prevent pressure from exceeding Reactor Building Design pressure.

The Reactor Building Spray System provides a means of reducing the concentration of airborne radioactive iodine in the Containment atmosphere following a LOCA in order to prevent exceeding legal thyroid dose limits.

### CA: CHEMICAL ADDITION, LIQUID SAMPLING, AND POST ACCIDENT SAMPLING SYSTEMS

Safety-related valves in these systems are shown on Flow Diagrams FD-302-671, FD-302-672, and FD-302-700. Their only safety-related function is Containment Isolation.

### CD: CONDENSATE SYSTEM

Condensate System components are illustrated on Flow Diagram FD-302-101. Functional requirements are stated in EDBD 6/23.

The Condensate System is included in the IST Program due to the existence of a small number of ASME Safety Class valves in the vicinity of the Condensate Storage Tank, CDT-1. CDT-1 was formerly the safety-related source of supply to the Emergency Feedwater pumps until the addition of the dedicated Emergency Feedwater Tank, EFT-2.

## CF: CORE FLOOD SYSTEM

Components of the Core Flood System are shown on Flow Diagram FD-302-702. Functional requirements of the Core Flood System are identified in Section 1.2 of Enhanced Design Basis Document 6/5. The following functions comprise the basis for its inclusion in the Inservice Testing (IST) Program:

The Core Flood (CF) System provides a rapid injection of a large volume of borated water into the Reactor Vessel for core cooling and Reactor shutdown during loss of coolant accidents.

The CF System provides Reactor Building isolation associated with CF pipes penetrating containment. This function is accomplished by several check valves and automatically operated valves in the vent, drain, and nitrogen and makeup water supply lines to the Core Flood Tanks. The automatically actuated valves are provided with an ES Signal for containment isolation.

Maintains the RC pressure boundary associated with CF piping connected to the RCS. Valves CFV-1 and CFV-3 are specifically credited with the accomplishment of this function; valves CFV-2 and CFV-4 provide backup.

Provides redundant flow paths to the Reactor Vessel for the DH System. Valves CFV-1 through CFV-4 are required to perform functions in the accomplishment of this system function.

Provides isolation of the DH System from the RC System to prevent DH overpressurization. Valves CFV-1 and CFV-3 operate in conjunction with DHV-1 and DHV-2 to accomplish this function. Information regarding DHV-1 and 2 is included in the DH System Package.

## CH: CHILLED WATER SYSTEM

Components of the Chilled Water System are illustrated on Flow Diagrams FD-302-756, FD-302-765, and FD-302-769. Functional requirements are identified in Section 1.2 of Enhanced Design Basis Document (EDBD) 8/15. The functions of the Chilled Water System which comprise the basis for its inclusion in the Inservice Testing (IST) Program are:

The CH System provides convectional cooling for essential Control Room ventilation equipment in order to maintain operability of Control Room equipment and habitability of the Control Room when required to safely shut down the Plant or for mitigation of an accident.

The CH System provides convectional cooling for the EFIC Rooms HVAC System during all plant modes of operation excluding certain fires.

#### CI: INDUSTRIAL COOLING WATER SYSTEM

The Industrial Cooling Water System is illustrated on Flow Diagram FD-302-762. Containment Isolation is the only safety-related function of the System. Functional requirements are identified in Enhanced Design Basis Document 6/29.

#### DC: DECAY HEAT CLOSED CYCLE COOLING SYSTEM

Components of the Decay Heat Closed Cycle Cooling System are illustrated on Flow Diagram FD-302-631. Functional requirements are identified in Section 1.2 of Enhanced Design Basis Document (EDBD) 6/6.

The function of the Decay Heat Closed Cycle Cooling System which comprises the basis for its inclusion in the Inservice Testing (IST) Program is that it removes decay heat from the reactor core via the DH System as well as cooling various pumps and motors while placing the plant in the Cold Shutdown condition or following a LOCA or HELB.

#### DF: FUEL OIL TRANSFER SYSTEM

The Emergency Diesel Generator Fuel Oil Transfer System is illustrated on Flow Diagram FD-302-281. The System provides the safety function of ensuring operability of the Emergency Diesel Generators in the event that offsite power is unavailable for the safe shutdown of the Reactor or the mitigation of accident conditions. Functional requirements are identified in Enhanced Design Basis Document 6/15.

#### DH: DECAY HEAT REMOVAL SYSTEM

The Decay Heat Removal System is illustrated on Flow Diagram FD-302-641. Functional requirements of the Decay Heat Removal (DH) System are identified in Section 1.2 of Enhanced Design Basis Document 6/3. The following post-accident functions comprise the basis for its inclusion in the Inservice Testing (IST) Program:

The Decay Heat Removal (DH) System automatically provides borated water to the core for short term cooling and reactivity control. This refers to the post-LOCA injection phase and involves taking a suction on the BWST with the Decay Heat Removal Pumps and discharging to the LPI injection lines into the Reactor Vessel via the Core Flood nozzles.

The DH System provides long term core cooling and reactivity control following a LOCA by recirculation of borated water from the RB Sump. This involves shifting the suction from the BWST to the RB Sump; the remainder of the lineup remains the same as for the injection phase described above.



For a small break LOCA, the DH System may be required to provide suction for the MU Pumps for high pressure injection/recirculation (i.e., piggyback mode).

The DH System provides containment heat removal during the performance of the above functions via the DH Heat Exchangers.

In addition to the above functions, the DH System is also credited with providing the capability to take the Plant from Mode 4 (Hot Shutdown) to Mode 5 (Cold Shutdown).

#### DJ: JACKET COOLANT/AIR COOLER COOLANT SYSTEM

The Emergency Diesel Generator Jacket Cooling and Air Coolant Cooling Systems are illustrated on Flow Diagram FD-302-283 and FD-302-284. The System provides the safety function of ensuring operability of the Emergency Diesel Generators in the event that offsite power is unavailable for the safe shutdown of the Reactor or the mitigation of accident conditions. Functional requirements are identified in Enhanced Design Basis Document 5/13.

#### DL: LUBE OIL PIPING SYSTEM

The Emergency Diesel Generator Lube Oil System is illustrated on Flow Diagram FD-302-285. This System also provides the safety function of ensuring operability of the Emergency Diesel Generators in the event that offsite power is unavailable for the safe shutdown of the Reactor or the mitigation of accident conditions. Functional requirements are identified in Enhanced Design Basis Document 6/15.

#### DO: DOMESTIC WATER SYSTEM

DO System components are shown on FD-302-211. Functional requirements are identified in Section 1.2 of Enhanced Design Basis Documents (EDBD) 6/31. A small portion of DO System piping is used as a flowpath for emergency bearing flushing and cooling water for the RW Pumps in the event that the non-safety related DO System is not available post-accident.

#### DW: CONDENSATE AND DEMINERALIZED WATER SUPPLY SYSTEM

DW System components are shown on FD-302-182. Functional requirements are identified in Enhanced Design Basis Document 6/30. The only safety function of this system is Containment Isolation.



## EF: EMERGENCY FEEDWATER SYSTEM

Components of the Emergency Feedwater System are illustrated on Flow Diagram FD-302-082. Functional requirements are identified in Section 1.2 of Enhanced Design Basis Document (EDBD) 6/13.

The following functions of the Emergency Feedwater System comprise the basis for its inclusion in the Inservice Testing (IST) Program:

The EF System automatically or manually provides water to the OTSG's at a rate sufficient to remove decay heat for a Loss of Main Feedwater (with or without a loss of all AC Power), or for a Main Feedwater Line Break upstream of the last check valve.

The EF System automatically or manually provides water to the appropriate OTSG for pipe breaks which depressurize the steam generator such as a Main Steam Line Break or a Main Feedwater Line Break downstream of the last check valve.

The EF System provides water to the OTSG's to satisfy small break LOCA requirements.

The EF System provides water to the OTSG's sufficient to maintain RCS flow in the transition from forced to natural circulation when the RC Pumps are tripped.

The EF System supplies water to be able to remove decay heat and cool the plant down using the OTSG's to a temperature and pressure acceptable for operation of the DH System.

## EG: COMPRESSED STARTING AIR AND ENGINE EXHAUST SYSTEM

EG System components are illustrated on Flow Diagram FD-302-282. The system is required to support starting of the Emergency Diesel Generators in the event that offsite power is unavailable when required to shutdown the reactor or to mitigate the consequences of an accident. Functional requirements are identified in Enhanced Design Basis Document 6/15.

## FS: FIRE SERVICE WATER SYSTEM

The only safety function of the Fire Service Water System, as shown on Flow Diagram FD-302-231, is Containment Isolation. Functional requirements are identified in Enhanced Design Basis Document 6/28.

### FW: MAIN FEEDWATER SYSTEM

Functional requirements of the Main Feedwater System are identified in Section 1.2 of Enhanced Design Basis Document 6/18. The following functions of the Main Feedwater System comprise the basis for its inclusion in the Inservice Testing (IST) Program:

The FW System provides isolation capability for the feedwater side of the OTSG's for a Steam Line Failure Accident.

The FW System provides a flowpath for Emergency Feedwater to the OTSG's when required for safe shutdown of the Reactor or mitigation of an accident.

### IA: INSTRUMENT AIR

The safety-related components of the IA System serve the function of maintaining Containment Isolation. Components are shown on Flow Diagram FD-302-271. Functional requirements are identified in Enhanced Design Basis Document 6/27.

### LR: REACTOR BUILDING LEAK RATE TESTING AND POST ACCIDENT HYDROGEN PURGE SYSTEM

Components of the LR System are shown on FD-302-722. The only safety-related function of the LR System is Containment Isolation.

### MS: MAIN STEAM SYSTEM

Components of the Main Steam System are illustrated on Flow Diagram FD-302-011. Functional requirements are identified in Section 1.2 of Enhanced Design Basis Document (EDBD) 6/10. The following functions comprise the basis for its inclusion in the Inservice Testing (IST) Program:

The MS System provides automatic isolation of the OTSG's for a Main Steam Line Failure.

The MS System provides adequate relief capacity to protect the OTSG's from overpressurization for a Loss of Electric Power event.

The MS System controls OTSG pressure and thereby provides a mechanism for controlled decay heat removal as required to place the Plant in a safe shutdown condition or to mitigate the consequences of an accident.

The MS System provides steam to the Emergency Feedwater System turbine-driven pump when EF initiation is required (refer to the IST System Package for Emergency Feedwater).

The MS System provides the capability for RC System cooldown and effluent release control for a Steam Generator Tube Failure event.

### MU: MAKE-UP & PURIFICATION SYSTEM

Functional requirements of the Make-up & Purification (MU) System are identified in Section 1.2 of Enhanced Design Basis Document 6/2. The following functions comprise the basis for its inclusion in the Inservice Testing (IST) Program:

The MU System automatically provides high pressure injection (HPI) of borated water to the RC System for emergency core cooling during the following conditions:

- a. Small Break LOCA
- b. Piggyback Mode
- c. Steam Line Break
- d. Steam Generator Tube Rupture

The MU System provides an additional method of core cooling via the HPI flow path and the PORV in the event that steam generator heat transfer is inadequate.

The MU System provides a means of reactor shutdown, supplemental to the Control Rods, and of maintaining the shutdown margin by the addition of boric acid to the RC System.

### NG: NITROGEN SYSTEM

NG System components are illustrated on Flow Diagram FD-302-673. Containment Isolation is the only safety-related function of NG System components.

Functional requirements are identified in Enhanced Design Basis Document 6/20.

### RC: REACTOR COOLANT SYSTEM

Functional requirements of the Reactor Coolant System are identified in Section 1.2 of Enhanced Design Basis Document 6/1. The following functions comprise the basis for its inclusion in the Inservice Testing (IST) Program:

The Reactor Coolant (RC) System circulates reactor coolant and transfers sufficient heat from the reactor core to the secondary fluid in the steam generator during anticipated operational occurrences (e.g., plant transients), assuming proper functioning of plant safety systems occurs, so that fuel thermal limits are not exceeded. This function is accomplished either by forced circulation of

reactor coolant with the RC pumps or by natural circulation cooling. The RC System transfers post accident decay heat from the core to redundant interfacing components and systems.

The RC System forms a barrier against the release of reactor coolant and radioactive material to the reactor building or the main steam system.

The RC System allows for HPI core cooling via the PORV should the heat transfer capability in both steam generators be lost.

#### RW: NUCLEAR SERVICES AND DECAY HEAT SEA WATER SYSTEM

Components of the Nuclear Services and Decay Heat Sea Water (RW) System are illustrated on Flow Diagram FD-302-611. Functional requirements are identified in Section 1.2 of Enhanced Design Basis Documents (EDBD) 6/12. The following functions of the Nuclear Services and Decay Heat Sea Water System comprise the basis for its inclusion in the Inservice Testing (IST) Program:

The RW System provides cooling water to the SW system for heat removal in order to safely shut down the Reactor or to mitigate the consequences of a design basis accident.

The RW System provides cooling water to the DC system for removal of decay heat when placing the Plant in the Cold Shutdown condition.

The RW System provides cooling water to the DC system for heat removal from various components required to mitigate the consequences of a design basis accident.

The RW System supplies safety grade bearing flush water to the RW pumps for cooling and lubrication in the event the DO System is unavailable.

#### SA: SERVICE AIR SYSTEM

The safety-related components of the SA System serve the function of maintaining Containment Isolation. Components are shown on Flow Diagram FD-302-271. Functional requirements are identified in Enhanced Design Basis Document 6/27.



### SF: SPENT FUEL COOLING SYSTEM

The components of the Spent Fuel Cooling System are illustrated on Flow Diagram FD-302-621. Functional requirements are identified in Section 1.2 of Enhanced Design Basis Document (EDBD) 6/7. The functions of the Spent Fuel Cooling System which comprise the basis for its inclusion in the Inservice Testing (IST) Program are:

The SF System provides decay heat removal of irradiated fuel located in the SF pools. This is accomplished by the Spent Fuel Cooling Pumps and Heat Exchangers via associated valves and piping.

The SF System limits radioactive fission products from entering the outside environment following a fuel assembly rupture in the Spent Fuel storage pools. As a safety function, this is accomplished by maintaining the temperature of the pools within the required limits to prevent excessive evaporation which would result in increased airborne activity. The SF System filters and demineralizer would also assist in the fulfillment of this function, if available, but these components are non safety-related and therefore cannot be credited with this capability.

### SW: NUCLEAR SERVICES CLOSED CYCLE COOLING SYSTEM

Functional requirements for the Nuclear Services Closed Cycle Cooling System are identified in Section 1.2 of Enhanced Design Basis Document (EDBD) 6/11. The components are illustrated on Flow Diagram FD-302-601. Those functions of the Nuclear Services Closed Cycle Cooling System which comprise the basis for its inclusion in the Inservice Testing (IST) Program are:

The SW System removes heat from safety-related equipment which is required to safely shut down the Reactor or to mitigate the consequences of an accident.

The SW System prevents pressure and temperature conditions inside the Reactor Building from exceeding design limits following a LOCA or HELB by providing cooling of the Containment atmosphere.

### WD: LIQUID WASTE DISPOSAL, GAS WASTE DISPOSAL & WASTE GAS SAMPLING SYSTEMS

Radwaste Systems are illustrated on Flow Diagrams FD-302-681, FD-302-691, and FD-302-692. Containment Isolation is the only safety-related function of these systems.

### WS: CONTAINMENT MONITORING SYSTEM

WS System components are shown on FD-302-693. Containment Isolation is the only safety-related function of the System.



## 1.6 Manual Revision

### REVISION

Minor revisions (generally considered as those revisions affecting less than 10 pages of the manual) will be marked with a vertical bar in the right margin except for editorial and/or typographical corrections which do not require vertical bars. Major Revisions do not require vertical revision bars, however, a description of the changes incorporated by the major revision will be provided in the Revision History (Exhibit 1). A history of revision will be maintained (Exhibit 1) beginning with Revision 14 of this Manual. Each page will contain the revision number and page number. A list of effective pages will be maintained showing the latest revision/interim change number for each page.

### INTERIM CHANGES

Interim changes to the Manual such as additions or deletions of components to Tables or Lists and typographical/editorial changes will be approved by the Supervisor, Nuclear Plant Technical Support, Inservice Inspection/OTSG Section (Exhibit 3). Interim changes will be incorporated into the manual at the next revision. A history of Interim Changes (Exhibit 1) will be maintained beginning with Revision 14 of this Manual.

### REVIEW AND COMMENT

The originator of a revision will determine the appropriate departments to be included in the review cycle (See Exhibit 2). Parallel reviews are allowed. Ten working days will be allowed for review and comment. If no comments are received within this time period it will be assumed the reviewer had no comments. Minor revisions as do not require review and comment.

### APPROVALS

Revisions to the format or a major re-write of the manual must be approved by the Manager, Nuclear Plant Technical Support.

Revisions to this Manual do not require Plant Review Committee (PRC) approval. Surveillance Procedures which implement the IST Program are subject to the requirements of Section 50.59, "Changes, Tests, and Experiments" for changes in scope, test methods or acceptance criteria thereby assuring compliance with 10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants.

### QUALITY RECORD

The Inservice Testing Pump and Valve Manual will be maintained and controlled per AI-1100, Retention of Plant Operating Records as a "Controlled Document".

## 1.7 References

- Code of Federal Regulations, Title 10, Part 50 Para 50.55a, Codes and Standards
- American Society of Mechanical Engineers, Boiler and Pressure Vessel Code, Section XI, 1983 Edition through the Summer, 1983 Addenda, "Rules for Inservice Inspection of Nuclear Power Plant Components" (hereafter referred to as the Code).
- ANSI/ASME OM-1, 1981, "Requirements for Inservice Performance Testing of Nuclear Power Plant Pressure Relief Devices".
- ANSI/ASME OMa-1988, "Operation and Maintenance of Nuclear Power Plants" Parts 6 and 10.
- Crystal River Unit #3 Improved Technical Specifications.
- Crystal River Unit #3 Final Safety Analysis Report.
- Crystal River Unit #3 Design Basis Documents.
- Crystal River Unit #3 IST Basis Document.
- Crystal River Unit #3 Nuclear Engineering Procedure, NEP-115, Control of Nuclear Engineering Manuals.
- USNRC Generic Letter 89-04, Guidance on Developing Acceptable Inservice Test Programs, April 3, 1989.
- Minutes of the Public Meetings on Generic Letter 89-04, October 25, 1989.
- Draft NUREG-1482, Guidelines for Inservice Testing at Nuclear Power Plants.
- Interoffice Correspondence SNES88-0168, ES Response Times
- REA 91-0828, requesting an update to SNES88-0168 for High Pressure Injection/Low Pressure Injection actuation due to Technical Specification amendment #130
- FPC Response to Generic Letter 89-04, FPC/NRC Letter 3F1089-01

## EXHIBIT 1

PUMP & VALVE MANUAL REVISION HISTORY				
Revision Number	Interim Change Number	Reason for Revision	Date Entered	Entered By

PUMP & VALVE MANUAL REVIEW SHEET				
REVISION NUMBER:				
DEPARTMENT	Reviewed By	Date	Comments Attached	No Comment
<input type="checkbox"/> Nuclear Licensing Department				
<input type="checkbox"/> Nuclear Maintenance Planning				
<input type="checkbox"/> Nuclear Plant Technical Support (ISI)				
<input type="checkbox"/> Nuclear Plant Technical Support (System Engineer)				
<input type="checkbox"/> Other				
<input type="checkbox"/> Other				

Return to: \_\_\_\_\_  
Originator

Approved by: \_\_\_\_\_  
Manager, Nuclear Plant Technical Support

PUMP & VALVE MANUAL  
INTERIM CHANGE

Revision Number:

Interim Change Number:

Prepared by:

Date:

Approved by: \_\_\_\_\_ Date:  
Supervisor, NPTS, ISI/OTSG



## **2.0 PUMP TESTING**

### **2.1 Scope**

The Inservice Pump Testing Program includes all ASME Class 1, 2 and 3 safety related centrifugal and positive displacement type pumps that are provided with an emergency power source, and are not exempt by paragraph 2.2, and which function to:

- a. mitigate the consequences of an accident or,
- b. place the reactor in a safe shutdown condition.  
( CR#3's license defines safe shutdown as hot standby)

### **2.2 Exemptions**

The following are exempt from requirements of this program:

- a. pumps that are supplied with emergency power solely for operating convenience.
- b. drivers of pumps, except where the pump and driver form an integral unit and the pump bearings are in the driver.

### **2.3 General Program Requirements**

Inservice pump tests shall be conducted in accordance with Article IWP-3000 of the Code, unless specific relief is granted by the Commission.

Inservice pump tests shall be conducted nominally every three months during normal plant operation.

CR#3 Improved Technical Specifications, SR 3.0.2, specifies the frequency for each surveillance requirement is met if the surveillance is performed within 1.25 times the interval specified as measured from the previous surveillance performance.

It is recommended that pump testing frequency be maintained during plant shutdown periods if this can be reasonably accomplished, although this is not mandatory. If the pump is not tested when due during plant shutdown, the pump shall be tested within one week after the plant is returned to normal operation and the test schedule resumed.

After a pump has been replaced, or when pump repairs or maintenance may have affected any reference value, the pump shall be tested prior or within 96 hours of returning the pump to normal operation to determine new reference values or reconfirm previous values.

With the exception of measuring bearing temperatures, or as specified by approved Relief Requests, pump parameters that shall be measured or observed during testing shall be consistent with the guidelines of Article IWP-3000 as identified in the Pump Program Plan (Table 1). Relief Request No. V-113 provides the bases for excluding bearing temperature measurements.

All test data shall be analyzed within 96 hours after completion of a test, however, when data is recorded which exceeds the Required Action range, the pump shall immediately be declared inoperable.

## **2.4 Maintenance Requiring/Not Requiring Surveillance Test**

**2.4.1** A pump may or may not require the surveillance procedures referenced in this manual as the required post-maintenance testing prior to being placed back in service. Each instance should be evaluated separately to determine if surveillance procedure performance is required as the post-maintenance test. Typical maintenance activities that may require surveillance procedure performance as the post-maintenance test include the following :

- Partial or complete disassembly of pump.
- Disconnection of coupling.
- Disassembly of pump suction or discharge piping
- Disassembly of pump bearing housing and/or removal of bearing.
- Replacement or readjustment of pump packing/seal.

NOTE: REA 93-1330 provides justification for not performing full hydraulic testing for RWP-2A/B or RWP-3A/B after replacement or adjustment of packing. Refer to REA 93-1330 for required post maintenance testing. This is only applicable to the Vertical Wet Pit RW Pumps.

- Realignment.
- Balancing of pump.
- Replacement of pump.
- Changing of oil viscosity.

2.4.2 Typical activities not requiring post-maintenance pump testing include the following.

- Maintenance limited to the driver unless the coupling has been disconnected.
- Maintenance limited to any gear box, unless couplings have been disconnected or gears have been adjusted or replaced.
- Maintenance limited to support systems (lube oil coolers, cyclone separators, etc.).

## 2.5 Implementation of NRC Generic Letter 89-04, Position 9

Crystal River Unit #3 has five (5) pumps in the Inservice Testing Program that have at least a portion of their test loop flowing through minimum flow recirculation lines that have no installed flow instrumentation or have flow instrumentation not meeting code requirements at the reduced flow rate. These pumps are the two Emergency Feedwater Pumps, EFP-1 and EFP-2, and the three Make-up Pumps, MUP-1A, MUP-1B, and MUP-1C.

For the above referenced pumps, Position 9 of Generic Letter 89-04 will be implemented. Quarterly testing of the Emergency Feedwater Pumps will be continued through the minimum flow recirculation lines with pump vibration and differential pressure measurements taken. The Make-up Pumps will continue to be tested quarterly with Reactor Coolant System makeup flow and Reactor Coolant Pump seal injection flow established with existing instrumentation and differential pressure and vibration measurements taken.

On a refueling outage basis, the Emergency Feedwater and Make-up pumps will be tested at full or substantial flow conditions with flow, differential pressure and bearing vibration measurements taken.

## 2.6 Pump Testing Program Plan Description

Pumps that are required to be tested by the program are identified in Table 1, Pump Testing Program Plan. The plan is organized to provide the following information:

- System - plant system of which the pump is a component.
- P & ID Number - CR#3 302 series drawing number where pump is located.
- Pump Tag - pump identification number.

- P & ID Coordinates - coordinates on the referenced P&ID where the pump is located.
- Quantities Measured - Test parameters that are measured per ASME Section XI, Table IWP-3100-1 or approved Relief Requests.

Measured Parameters include the following:

- Pump Speed (n)
  - Inlet Pressure (Pi)
  - Differential Pressure (Pd)
  - Flow Rate (Q)
  - Vibration Amplitude (V)
  - Bearing Temperature (Tb)
- Surveillance procedure number that performs the pump test.
  - Comments that provide other specific pump information.

TABLE 1 - PUMP TESTING

SYSTEM AND PIPING & INST. DIAGRAM (COMPOSITE)	PUMP TAG	P & ID COORDINATES	QUANTITIES MEASURES (YES/NO)						SURV. PROC.	COMMENTS
			SPEED (n)	INLET PRESSURE (Pi)	D'FF. PRESSURE (dP)	FLOW RATE (Q)	VIBRATION <sup>1</sup> (V)	BEARING <sup>1</sup> TEMPERATURE (Tb)		
Makeup and Purification (FD-302-661)	MUP-1A	F-6	NO	YES	YES	YES <sup>2</sup>	YES	NO	340C 630	Driven by induction type motors.
	MUP-1B	F-5	NO	YES	YES	YES <sup>2</sup>	YES	NO	340C 630	Driven by induction type motors.
	MUP-1C	F-3	NO	YES	YES	YES <sup>2</sup>	YES	NO	340F 630	Driven by induction type motors.
Emergency Nuclear Service Seawater (FD-302-611)	RWP-2A	G-4	NO	YES	YES	YES	YES	NO	344A	Driven by induction type motors.
	RWP-2B	G-5	NO	YES	YES	YES	YES	NO	344B	Driven by induction type motors.
Decay Heat Services Seawater (FD-302-611)	RWP-3A	G-3	NO	YES	YES	YES	YES	NO	340A	Driven by induction type motors.
	RWP-3B	G-6	NO	YES	YES	YES	YES	NO	340D	Driven by induction type motors.
Spent Fuel Cooling (FD-302-621)	SFP-1A	C-3	NO	YES	YES	YES	YES	NO	334A	Driven by induction type motors.
	SFP-1B	D-3	NO	YES	YES	YES	YES	NO	334B	Driven by induction type motors.
Nuclear Services Closed Cycle Cooling <sup>3</sup> (FD-302-601)	SWP-1A	D-6	NO	YES	YES	YES	YES	NO	344A	Driven by induction type motors.
	SWP-1B	E-6	NO	YES	YES	YES	YES	NO	344B	Driven by induction type motors.

<sup>1</sup> Approved relief V-113 requires no bearing temperature measurements and vibration measurements have been changed to measure in velocity, unfiltered.

<sup>2</sup> Tested quarterly through a minimum flow recirculation line. The full flow test of MU&P pumps is performed per SP-630 during Refueling Outages.

<sup>3</sup> Two pumps driven by one motor for each tag number, for a total of four pumps.



TABLE 1 - PUMP TESTING

PUMP NAME AND PIPING & INST. DIAGRAM (COMPOSITE)	PUMP TAG	P & ID COORDINATES	QUANTITIES MEASURES (YES/NO)						SURV. PROC.	COMMENTS
			SPEED (n)	INLET PRESSURE (Pi)	DIFF. PRESSURE (dP)	FLOW RATE (Q)	VIBRATION <sup>1</sup> (V)	BEARING <sup>1</sup> TEMPERATURE (Tb)		
Building Spray (FD-302-711)	BSP-1A	H-5	NO	YES	YES	YES	YES	NO	340B	Driven by induction type motors.
	BSP-1B	E-5	NO	YES	YES	YES	YES	NO	340E	Driven by induction type motors.
Chilled Water (FD-302-756)	CHP-1A	C-7	NO	YES	YES	YES	YES	NO	375A	Driven by induction type motors.
	CHP-1B	E-7	NO	YES	YES	YES	YES	NO	375B	Driven by induction type motors.
Decay Heat Closed Cycle Cooling (FD-302-631)	DCP-1A	C-2	NO	YES	YES	YES	YES	NO	340A	Driven by induction type motors.
	DCP-1B	C-7	NO	YES	YES	YES	YES	NO	340D	Driven by induction type motors.
Emergency Diesel Gen. Fuel Oil Transfer (FD-302-281)	DFP-1A	E-3	NO	YES	NO <sup>3</sup>	YES	YES	NO	311	Driven by induction type motors.
	DFP-1B	E-5	NO	YES	NO <sup>3</sup>	YES	YES	NO	311	Driven by induction type motors.
Decay Heat Removal (FD-302-641)	DHP-1A	E-4	NO	YES	YES	YES	YES	NO	340B	Driven by induction type motors.
	DHP-1B	E-6	NO	YES	YES	YES	YES	NO	340E	Driven by induction type motors.
Emergency Feedwater (FD-302-082)	EFP-1	G-4	NO	YES	YES	NO <sup>2</sup>	YES	NO	349A 640A	Driven by induction type motors.
	EFP-2	D-5	YES	YES	YES	NO <sup>2</sup>	YES	NO	349B 640B	Turbine driven (variable speed).

<sup>1</sup> Approved relief V-113 requires no bearing temperature measurements and vibration measurements have changed to measure in velocity, unfiltered.

<sup>2</sup> Tested quarterly through a minimum flow recirculation line. The full flow test of EF pumps is performed per SP-640A (EFP-1) and SP-640B (EFP-2) during Refueling Outages.

<sup>3</sup> The quantity measured for this pump is discharge pressure in accordance with granted relief DF-91-01.

### **3.0 VALVE TESTING**

#### **3.1 Scope**

The Inservice Valve Testing Program includes all ASME Class 1, 2 or 3 valves that are not exempt by paragraph 3.2, and which are required to perform a specific function to:

- a. mitigate the consequences of an accident or,
- b. place the reactor in a safe shutdown condition.  
(CR#3's license defines safe shutdown as hot standby)

#### **3.2 Exemptions**

The following are exempt from requirements of this program:

- a. Maintenance Valves - valves that are used only to isolate components to perform maintenance.
- b. Operating Convenience Valves - valves used only for operating convenience, such as manual vent, drain, instrument and test valves.
- c. System Control Valves - valves such as pressure regulating, flow control and manual throttle valves.
- d. External Control and Protection Systems valves in systems responsible for sensing plant conditions and providing signals for valve operation.
- e. Thermal Reliefs - valves that provide overpressure protection for a component that can be isolated for maintenance during operation.
- f. Relief Valves located in portions of safety related systems that are isolated or not required to function in mitigating the consequences of an accident or placing the plant in a safe shutdown condition.

#### **3.3 General Requirements**

Inservice valve tests shall be conducted in accordance with Article IWV-3000 of the Code unless specific relief is granted by the Nuclear Regulatory Commission.

Inservice valve tests shall be conducted nominally every three months during normal plant operation.

CR#3 Improved Technical Specifications, SR 3.0.2, specifies the frequency for each surveillance is met if the surveillance is performed within 1.25 times the interval specified as measured from the previous surveillance performance.

Valve testing that is specified to be conducted during cold shutdowns, shall commence within 48 hours of achieving cold shutdown (as defined in Relief Request V-320 as Mode 5) , and continue until all testing is complete or the plant is ready to return to power. However, it is not required to keep the plant in cold shutdown in order to complete all cold shutdown testing. Any testing not completed at one cold shutdown due to outage duration, shall commence and continue as above during any subsequent cold shutdown that may occur before the next refueling outage to meet the specified testing frequency. If testing during a cold shutdown is not commenced within 48 hours of achieving cold shutdown, then cold shutdown valve testing shall be completed prior to plant start-up.

For extended outages, testing need not commence within 48 hours provided that all valves required to be tested during cold shutdown will be tested prior to plant startup.

For cold shutdown intervals of less than three months, testing is not required unless three months have passed since the last cold shutdown test.

All valve testing required to be performed during a refueling outage shall be completed prior to returning the plant to operation.

For a valve in a system declared inoperable or not required to be operable, the exercising test schedule need not be followed. Within 30 days prior to returning the system to operable status, exercising tests shall be conducted and test schedules resumed.

When a valve or its control system has been replaced or repaired or has undergone maintenance that could affect its performance, and prior to declaring the valve operable, it shall be retested to demonstrate that the performance parameters which could be affected by the replacement, repair or maintenance are within acceptable limits.

At the time of the test, valves which have exceeded their stroke time limiting value, shall immediately be declared inoperable.

Containment Isolation Valves shall be tested in accordance with 10CFR50 Appendix J and controlled in accordance with the Local Leak Rate Testing Program. Containment Isolation Valves tested in accordance with 10 CFR 50, Appendix J have a specific maximum allowable leakage based on calculations provided in surveillance procedure SP-179A, Containment Leakage Types "B" and "C" Allowable Leak Rate Calculation and Master Data Sheets. Corrective Action for Containment Isolation Valves failing to meet the maximum allowable leakage criteria is in accordance with IWV-3427(a)

ASME Section XI, IWV-3427(b) requires increased test frequency or repair/replacement prior to a valve of NPS 6 inches or larger exceeding its maximum allowable leakage. This Program does not require increased test frequency or repair/replacement prior to failure of these valves. Since this position represents a deviation from the Code requirements, documentation of this deviation is provided in

accordance with the Guidance of USNRC Generic Letter 89-04.

Pressure Isolation Valves included in this program are those identified under an Event-V evaluation required by the Reactor Safety Study, WASH-1400. These valves are listed along with their acceptable leakage criteria in CR-3 Improved Technical Specification LCO 3.4.13 and associated Bases and tested in accordance with Surveillance Requirement 3.4.13.1.

Relief valves shall be tested in accordance with ASME/ANSI OM -1, 1981 to verify set pressure and seat tightness.

Exercising check valves to the full open position utilizing flow is considered acceptable by Generic Letter 89-04 if the maximum required accident flowrate is passed through the valve.

Where system design or operation prevents full stroke exercising, USNRC Generic Letter 89-04 allows the valve to be disassembled and manually exercised as an alternative. Check valves will be disassembled and inspected for loose, worn, or corroded parts, and full-stroke exercised to verify that the valve disk will fully open and/or close. The check valve will be partial stroke tested upon reassembly if possible. Should a valve fail inspection and subsequent engineering review, all remaining check valves in that group shall be disassembled and inspected. Should this event occur, the sequence of disassembly and inspection shall be repeated starting the next fuel cycle unless the extension of the interval can be justified.

The disassembly and inspection of these valves within a group is based on each valve having the same design (manufacturer, size, model and materials of construction) and service condition, including valve orientation. A different check valve from each group is to be inspected during each fuel cycle on an alternating basis, thereby ensuring each valve is inspected at least once every six (6) years.

Power operated valves have established stroke-time reference values established based on measurement taken when the valve is operating acceptably. Acceptance valve stroke times will be determined by these reference values, as opposed to the Code allowed comparison to the previous test

The stroke time of all power operated valves shall be measured to at least the nearest second for a stroke time of 10 seconds or less, or 10% of the specified limiting stroke time for a full-stroke time longer than 10 seconds. The maximum allowable stroke time for a power operated valve shall be the most conservative value determined from the following:

- CR-3 Technical Specifications, Table 3.3-5;
- FPC Interoffice Correspondence SNES88-0168 and Engineering Question EQ 90-1687;



- Response to Generic Letter 89-04, FPC Letter 3F1089-01.

When practical, valves within the scope of IWV-3000 which are equipped with fail-safe actuators will be tested in accordance with IWV-3415 by observing that the valve goes to its fail-safe position upon loss of actuator power. Those valves which have the actuator power removed during exercising via a control switch need not be additionally tested. A satisfactory exercise of the valve obturator to its fail-safe position via the control switch satisfies the fail-safe test requirement.

Valves within the scope of IWV-3000 which are equipped with remote position indication will be tested in accordance with IWV-3300. Valve position verification tests shall be performed by exercising the valve and observing locally an appropriate indicator which signals the required change of obturator position and comparison with remote indication. Changes in system pressure, flow rate, level, temperature or other parameters may be used to supplement this observation and may be used as an alternative when direct local observation is not possible.

### **3.4 Reactor Vessel Internal Vent Valves**

Reactor vessel internal vent valves are tested during refuelings. These valves are considered an example of disassembly and inspection in lieu of full stroke testing as required by IWV-3520. These valves are affixed to the Reactor Core Support Shield and are only accessible when the Reactor Vessel Head and Plenum are removed. They are demonstrated operable at least once per 24 months by verifying through manual actuation that the valve is fully open with a force of less than or equal to 425 lbs (applied vertically upward). Video inspection of the valve body, disc and attachment mechanism is also performed to ensure no abnormal degradation. Disassembly and inspection is an acceptable alternative to full flow testing per Position 2 of Generic Letter 89-04 when full flow testing is not practical. This documentation of disassembly and inspection for these valves is being provided per the guidance of Generic Letter 89-04, Sections B and D.

### **3.5 Reactor Coolant System High Point Vent Valves**

The Reactor Coolant High Point Vent Valves are exercised during each refueling outage through the performance of SP-410. Testing on a refueling outage frequency is a prior NRC approved testing schedule resulting from the implementation of NUREG -0737 commitments. The commitment to exercise these valves on a refueling outage frequency was referenced in previously submitted IST Programs for CR#3, however, since this is a deviation from IWV frequency requirements, it is being specifically documented.



### 3.6 Maintenance Requiring/Not Requiring Surveillance Test

A valve may or may not require the referenced surveillance procedure to be performed as the required post-maintenance test prior to being returned to normal service following maintenance. The Nuclear Plant Technical Support, ISI/OTSG Section should be contacted if assistance is needed in making a determination. Typical maintenance activities requiring the surveillance procedure performance as post-maintenance testing include:

- Removal/replacement;
- Disassembly/rebuild (e.g., removal of bonnet assembly, stem, etc.);
- Disconnection/removal of power operator (air or electric);
- Limit switch or torque switch adjustment;
- Packing adjustment/replacement.
- In general, any maintenance activity that could affect valve operating or leakage characteristics.

Any maintenance/modification activity that involves a repair for a valve that is included in the Local Leak Rate Test Program must be reviewed by the ISI Specialist for "As-Found test requirements prior to the activity being performed.

An "As Found" test must be performed prior to any maintenance, adjustment, disassembly, or other activity which could affect "As Found" set pressure or seat tightness for Safety and Relief Valves included in this program.

Typical activities not requiring performance of the surveillance procedure as a post-maintenance valve test include the following:

- Removal/replacement of valve handwheel.
- Those electrical maintenance activities, such as fuse replacement, when adequate post-maintenance test requirements are included in the work package instructions to verify proper valve operation.
- In general, any maintenance activity that will not affect valve operating or leakage characteristics.

### 3.7 Valve Table Information and Cross Reference

Valves that are required to be tested by the program are identified in Section 3.0, Valve Testing. This Section is organized into two tables:

- Table 1 provides a list of valves tested in accordance with the Code or in accordance with alternate methods per granted relief;
- Table 2 lists those valves that are exempt from testing.

Valve Table 1 provides the following information:

- System - Dwg Number: each page of the valve plan contains a heading which identifies the plant system, system acronym, and associated Drawing Number (CR# 3 302 Series Drawings) for valves on the page.
- Valve Number - valve identification number.
- ASME Class - 1, 2, or 3
- Dwg Co-ord. - location coordinates of the valve on the Drawing.
- Val. Cat. - ASME Valve Category A, B, C, or AC assigned to the valve.
- Act/Pas - Identification of the valve as ACTIVE or PASSIVE.
- Size in inches - size of the valve
- Valve Type - valve design type as indicated by the following abbreviations:

ANG	-	Angle
BF	-	Butterfly
BL	-	Ball
CK	-	Check
DA	-	Diaphragm
GA	-	Gate
GL	-	Globe
ND	-	Needle
REG	-	Regulator
REL	-	Relief/Safety
SCK	-	Stop Check

SPC - Special Design  
3-WAY - 3-Way

- Act. Type - Type of valve actuator as indicated by the following abbreviations:

A - Air  
M - Manual  
MO - Motor Operator  
PV - Pilot Valve  
SA - Self-Actuated  
SO - Solenoid Operator

- Norm. Pos. - position of the valve during normal plant operation as indicated by the following:

C - Closed  
LC - Locked Closed  
O - Open  
LO - Locked Opened  
TH - Throttled

- Test Freq. - test frequency described by:

1 - Tested Once Every Three Months  
2 - Tested During Cold Shutdown  
3 - Tested During Refueling Outage (or not to exceed 2 years)  
4 - Tested At Least Once In A 5-Year Interval  
5 - Tested At Least Once In A 10-Year Interval

- Test Method - required inservice test to be performed indicated by the following:

EF-1B - Check valve closure verified at least once every three months  
EF-1F - Full stroke valve exercise at least once every three months  
EF-1P - Partial stroke valve exercise at least once every three months  
EF-2B - Check valve closure verified during Cold Shutdown  
EF-2F - Full stroke valve exercise during Cold Shutdown

- EF-2P - Partial stroke valve exercise during Cold Shutdown
- EF-3B - Check valve closure verified during Refueling Outages
- EF-3F - Full stroke valve exercise during Refueling Outages
- EF-3I - Disassemble/Inspect sample valves during Refueling Outages
- EF-3P - Partial stroke valve exercise during Refueling Outages
- EF-5 - Exercise valve that has fail-safe actuation to observe failure mode at least once every three months
- EF-6 - Exercise valve that has fail-safe actuation to observe failure mode during Cold Shutdown
- EF-7 - Exercise valve that has fail-safe actuation to observe mode during Refueling Outage
- ET-002 - Represents a rapid-acting valve with a limiting value of stroke time of 2.0 seconds.
- PVPI - Passive Valve Position Indicator Verification.
- SLT-1 - Category "A" valve, seat leak test during a Refueling Outage, at least once every two years
- SLT-2 - Category "A" valve that performs a pressure isolation function, as identified by Technical Specifications
- TF-3 - Functionally tested at a frequency required by OM-1 (1981) for Class 1 relief valves and Main Steam Safety Valves
- TF-4 - Functionally tested at a frequency required by OM-1 (1981) for Class 2 and 3 relief valves.

- Surv. Proc. - Surveillance procedure performing the required test/inspection.
- Remarks/RR/CSJ - applicable pertinent clarification or additional information is provided or referenced. Applicable Relief Request or Cold Shutdown Justification.

Valve Table 2 provides the following information:

- ID Number - valve identification number.
- Noun Name - The descriptive name of the valve.
- FD-302 - The CR#3 P&ID drawing Number on which the valve appears.
- Sheet - The Sheet Number of the P&ID on which the valve appears.
- Coord - The Coordinates on the P&ID where the valve appears.
- Service - Function the valve serves which identifies it as exempt.
- Xmt-Basis - Reference to IWV paragraph that provides the basis for exemption.



TABLE 1  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Reactor Building Purge						SYSTEM TAG: AH-XC				DRAWING: FD-302-751, SHEET 1 OF 1		
AHV-1A	2	B-4	A	*P	48	BF	A	C	2** 3	SLT-1 PVPI	177 177	Valves tested in pairs. Individual valve leakage rate is applied to pair, (AHV-1A & 1B) & (AHV-1C & 1D).
AHV-1B	2	C-4	A	*P	48	BF	MO	C	2** 3	SLT-1 PVPI	177 177	
AHV-1C	2	F-4	A	*P	48	BF	MO	C	2** 3	SLT-1 PVPI	177 177	
AHV-1D	2	G-4	A	*P	48	BF	A	C	2** 3	SLT-1 PVPI	177 177	

\* These valves are closed and de-energized during operational modes 1-4. These valves are required to have an operable isolation function during core alteration, or fuel shuffling, and are tested in accordance with Improved Technical Specifications surveillance requirements 3.9.3.2.

\*\* These valves are tested prior to establishing Reactor Building Purge, and following Purge Isolation, prior to entering Mode 4.

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	- Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Auxiliary Steam						SYSTEM TAG: AS			DRAWING: FD-302-051, SHEET 1 OF 1			
ASV-5	3	F-7	B	A	4	GA	MO	C	1	EF-1F	349B	
ASV-50	3	F-7	B	A	6	GA	SA	O	1	EF-5	349B	Trip Valve
ASV-204	3	F-7	B	A	4	GA	MO	C	1	EF-1F	349B	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Reactor Building Spray						SYSTEM TAG: BS			DRAWING: FD-302-711, SHEET 1 OF 1			
BSV-1	2	H-8	C	A	10	CK	SA	---	1	EF-1F	340B	Reference SNES 90-0435.
BSV-3	2	G-3	B	A	8	GL	MO	C	1	EF-1F	340B	ESA Signal: Open on RB isolation. Not subject to type "C" Leakage Test.
BSV-4	2	E-3	B	A	8	GL	MO	C	1	EF-1F	340E	ESA Signal: Open on RB isolation. Not subject to type "C" Leakage Test.
BSV-8	2	F-8	C	A	10	CK	SA	---	1	EF-1F	340E	Reference SNFS 90-0435.
BSV-16	2	F-8	B	P	10	GA	MO	LO	3	PVPI	435	
BSV-17	2	G-8	B	P	10	GA	MO	LO	3	PVPI	435	
BSV-26	2	F-2	C	A	8	CK	SA	C	3	EF-3I	620	V-030 Disassemble & inspect during Refueling Outages.
BSV-27	2	H-2	C	A	8	CK	SA	C	3	EF-3I	620	V-030 Disassemble & inspect during Refueling Outages.

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Liquid Sampling						SYSTEM TAG: CA-LS				DRAWING: FD-302-672, SHEET 1 OF 1		
CAV-1	2	B-3	A	A	3/8	GL	MO	C	1	EF-1F	370	ESA Signal: RB Isolation
									3	SLT-1	179C	
CAV-2	2	A-4	A	A	1	GL	SO	C	1	EF-1F	370	V-210, V-360 Alternate method of remote to local position verification is performed in SP-179C.
									1	EF-5	370	
									1	ET-002	370	
									3	SLT-1	179C	
CAV-3	2	B-3	A	A	3/8	GL	MO	C	1	EF-1F	370	ESA Signal: RB Isolation
									3	SLT-1	179C	
CAV-4	2	C-3	A	A	3/8	GL	MO	O	1	EF-1F	370	ESA Signal: RB Isolation
									3	SLT-1	179C	

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
CAV-5	2	D-3	A	A	3/8	GL	MO	O	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation
CAV-6	2	C-4	A	A	3/8	GL	A	O	1 1 3	EF-1F EF-5 SLT-1	370 370 179C	ESA Signal: RB Isolation
CAV-7	2	D-4	A	A	1	GL	A	O	1 1 3	EF-1F EF-5 SLT-1	370 370 179C	ESA Signal: RB Isolation
CAV-126	2	A-3	A	A	3/8	GL	MO	C	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Post Accident Sampling			SYSTEM TAG: CA-PA			DRAWING: FD-302-700, SHEET 1 OF 1						
CAV-429	2	C-2	A	P	3/8	GL	SO	C	3 3	SLT-1 PVPI	179C 179C	V-360*
CAV-430	2	C-2	A	P	3/8	GL	SO	C	3 3	SLT-1 PVPI	179C 179C	V-360*
CAV-431	2	B-4	A	A	3/8	GL	SO	C	1 1 3	EF-1F ET-002 SLT-1	370 370 179C	V-210, V-360
CAV-432	2	C-3	A	P	3/8	GL	SO	C	3 3	SLT-1 PVPI	179C 179C	V-360*
CAV-433	2	E-2	A	P	3/8	GL	SO	C	3 3	SLT-1 PVPI	179C 179C	V-360*
CAV-434	2	E-2	A	P	3/8	GL	SO	C	3 3	SLT-1 PVPI	179C 179C	V-360*
CAV-435	2	E-3	A	P	3/8	GL	SO	C	3 3	SLT-1 PVPI	179C 179C	V-360*
CAV-436	2	E-3	A	P	3/8	GL	SO	C	3 3	SLT-1 PVPI	179C 179C	V-360*

\* NRC approval pending for application of this Relief Request to this component.

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Condensate						SYSTEM TAG: CD				DRAWING: FD-302-101, SHEET 1 OF 1		
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CDV-103	3	C-3	B	A	8	GA	M	O	1	EF-1F	370	No Safety Function. Exercised for Plant Operations request.
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TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Core Flood			SYSTEM TAG: CF					DRAWING: FD-302-702, SHEET 1 OF 1				
CFV-1	1	H-5	A,C	A	14	CK	SA	C	3	SLT-2	603	PIV See Improved TS # 3.4.13, V-320, CS-060
									2	EF-2F	435	
									2	EF-2B	405	
									2	EF-2P	405	
CFV-2	1	H-4	C	A	14	CK	SA	C	3	EF-3I	620	V-129, V-320, CS-060 Disassembled & inspected at refuel intervals by maintenance procedures. Cat. C only per NRC letter TAC NO. 67178.
									2	EF-2P	405	
									2	EF-2B	405	
CFV-3	1	H-6	A,C	A	14	CK	SA	C	3	SLT-2	603	PIV See Improved TS # 3.4.13, V-320, CS-060
									2	EF-2F	435	
									2	EF-2B	405	
									2	EF-2P	405	
CFV-4	1	H-7	C	A	14	CK	SA	C	3	EF-3I	620	V-129, V-320, CS-060 Disassembled & inspected at refuel intervals by maintenance procedures. Cat. C only per NRC letter TAC NO. 67178.
									2	EF-2P	405	
									2	EF-2B	405	

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Pres.	Remarks
(continued from previous page)												
CFV-5	2	G-4	B	P	14	GA	MO	LO	3	PVPI	405	
CFV-6	2	G-7	B	P	14	GA	MO	LO	3	PVPI	405	
CFV-11	2	D-5	A	A	1	GL	MO	C	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation
CFV-12	2	D-6	A	A	1	GL	MO	C	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation
CFV-15	2	B-7	A	A	1	GA	MO	C	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation
CFV-16	2	B-4	A	A	1	GA	MO	C	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation
CFV-17	2	B-9	A,C	A	1	CK	SA	C	3	SLT-1	179C	V-160
CFV-18	2	B-9	A,C	A	1	CK	SA	C	3	SLT-1	179C	V-170
CFV-19	2	B-3	A,C	A	1	CK	SA	C	3	SLT-1	179C	V-170
CFV-20	2	B-2	A,C	A	1	CK	SA	C	3	SLT-1	179C	V-160
CFV-23	2	B-8	C	A	1	REL	SA	---	3	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
CFV-42	2	E-5	A	A	1	GL	A	C	1	EF-1F	370	V-210 ESA Signal: RB Isolation
									1	EF-5	370	
									1	ET-002	370	
									3	SLT-1	179C	



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Chilled Water

SYSTEM TAG: CH

DRAWING: FD-302-756, SHEET 1 OF 1

CHV-64	3	D-7	C	A	6	CK	SA	---	1 1	EF-1F EF-1B	375A 375B	
CHV-65	3	E-7	C	A	6	CK	SA	---	1 1	EF-1F EF-1B	375B 375A	
CHV-66	3	B-6	B	A	1/2	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
CHV-229	3	E-2	B	A	2-1/2	GA	M	O	1	EF-1F	370	

SYSTEM NAME: Chilled Water

SYSTEM TAG: CH

DRAWING: FD-302-765, SHEET 1 OF 1

CHV-90	3	D-8	B	A	2	GL	SO	C	1	EF-1F ET-002	375A 375A	V 210, V-362 Alternate method of remote to local position verification is performed in SP-435.
CHV-91	3	D-8	C	A	2	CK	SA	---	1	EF-1F	375B	
CHV-95	3	D-8	C	A	2	CK	SA	---	3 3*	EF-3I EF-3P	620 375A	V-080 Disassemble and inspect during Refueling Outages.

\* SP-375A provides post maintenance test after completion of SP-620

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
CHV-97	3	E-8	B	P	2	GL	SO	C	3	PVPI	435	V-362 Alternate method of remote to local position verification is performed in SP-435.
CHV-100	3	E-8	B	A	2	GL	A	O	1	EF-5	375A	Control valve with no open/close switch. It is air operated provides temperature control for the EFIC rooms. It does have a fail-safe function, therefore, it is fail-safe tested, with no time-stroke exercise.
CHV-101	3	E-8	B	P	2	GL	SO	C	3	PVPI	435	V-362 Alternate method of remote to local position verification is performed in SP-435.
CHV-108	3	D-1	B	A	2	GL	SO	O	1	EF-1F ET-002 *	375A 375A 435	V-210, V-362 * Alternate method of remote to local position verification is performed in SP-435.

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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CHV-113	3	F-1	B	A	2	GL	A	O	1	EF-5	375A	Control valve with no open/close switch. It is air operated provides temperature control for the EFIC rooms. It does have a fail-safe function, therefore, it is fail-safe tested, with no time-stroke exercise.
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CHV-202	3	F-B	C	A	2	CK	SA	---	1	EF-1F	375B	
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TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Industrial Cooling Water						SYSTEM TAG: CI			DRAWING: FD-302-762, SHEET 1 OF 1			
CIV-34	2	F-5	A	A	2-1/2	GA	A	O	1	EF-1F	370	ESA Signal: RB Isolation
									1	EF-5	370	
									3	SLT-1	179C	
CIV-35	2	F-3	A	A	2-1/2	GA	A	O	1	EF-1F	370	ESA Signal: RB Isolation
									1	EF-5	370	
									3	SLT-1	179C	
CIV-40	2	H-3	A	A	2-1/2	GA	A	O	1	EF-1F	370	ESA Signal: RB Isolation
									1	EF-5	370	
									3	SLT-1	179C	
CIV-41	2	H-5	A	A	2-1/2	GA	A	O	1	EF-1F	370	ESA Signal: RB Isolation
									1	EF-5	370	
									3	SLT-1	179C	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Decay Ht Closed Cycle Cooling						SYSTEM TAG: DC			DRAWING: FD-302-631, SHEET 1 OF 3			
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DCV-55	3	A-3	B	A	2	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
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SYSTEM NAME: Decay Ht Closed Cycle Cooling						SYSTEM TAG: DC			DRAWING: FD-302-631, SHEET 2 OF 3			
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DCV-56	3	B-2	B	A	2	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
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TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Diesel Fuel			SYSTEM TAG: DF			DRAWING: FD-302-281, SHEET 1 OF 1						
DFV-6	3	E-3	C	A	1	CK	SA	O	1 1	EF-1F EF-1B	311 311	*NOTE: Valve relief request for check valves in the Emergency Diesel Generator Fuel Oil Transfer System is not required as the valves are technical specification tested at least as frequently as Section XI requires.
DFV-7	3	E-3	C	A	1	CK	SA	O	1 1	EF-1F EF-1B	*354-A 311	
DFV-14	3	E-6	C	A	1	CK	SA	O	1 1	EF-1F EF-1B	311 311	
DFV-15	3	E-6	C	A	1	CK	SA	O	1 1	EF-1F EF-1B	*354-B 311	
DFV-23	3	C-1	C	A	1-1/2	CK	SA	C	1	EF-1F	*354-A	
DFV-24	3	C-7	C	A	1-1/2	CK	SA	C	1	EF-1F	*354-B	
DFV-25	3	H-7	C	A	2-1/2	CK	SA	O	1	EF-1F	311	
DFV-26	3	H-2	C	A	2-1/2	CK	SA	O	1	EF-1F	311	
DFV-29	3	A-8	C	A	1	CK	SA	O	1	EF-1F	*354-B	
DFV-31	3	A-9	C	A	1	CK	SA	O	1	EF-1F	*354-B	
DFV-37	3	A-2	C	A	1	CK	SA	O	1	EF-1F	*354-A	
DFV-39	3	A-3	C	A	1	CK	SA	O	1	EF-1F	*354-A	

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TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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DFV-45	3	G-4	B	A	2-1/2	GA	M	LO	1	EF-1F	370	—
DFV-46	3	G-5	B	A	2-1/2	GA	M	LO	1	EF-1F	370	
DFV-47	3	G-4	B	A	2-1/2	GA	M	C	1	EF-1F	370	
DFV-48	3	G-5	B	A	2-1/2	GA	M	C	1	EF-1F	370	
DFV-61	3	-	C	A	1/8	CK	SA	C	1	EF-1F	*354-A	
DFV-62	3	-	C	A	1/8	CK	SA	C	1	EF-1F	*354-B	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Decay Heat Removal						SYSTEM TAG: DH				DRAWING: FD-302-641, SHEET 1 OF 3		
DHV-1	1	C-1	A,C	A	10	CK	SA	C	2 3	EF-2F SLT-2	435 603	PIV-See Improved TS # 3.4.13, V-320,CS-120
DHV-2	1	B-1	A,C	A	10	CK	SA	C	2 3	EF-2F SLT-2	435 603	PIV-See Improved TS # 3.4.13, V-320, CS-120
DHV-5	2	C-3	B	A	10	GA	MO	C	2	EF-2F	435	V-320, CS-122
DHV-6	2	B-3	B	A	10	GA	MO	C	2	EF-2F	435	V-320, CS-122
DHV-7	2	B-3	B	A	8	GA	MO	C	1	EF-1F	340E	
DHV-8	2	C-3	B	A	8	GA	MO	C	1	EF-1F	340B	
DHV-11	2	C-5	B	A	4	GA	MO	C	1	EF-1F	340B	
DHV-12	2	B-6	B	A	4	GA	MO	C	1	EF-1F	340E	
DHV-69	2	B-8	C	A	6	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
DHV-70	2	B-8	C	A	6	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.

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TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Vai. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
DHV-91	2	D-3	A	P	2	GL	MO	C	3 1	SLT-1 EF-1F	179C 370	
DHV-93	2	D-2	A,C	P	2	CK	SA	C	3	SLT-1	179C	DHV-93 is normally in its safety position.
DHV-105	2	D-4	B	P	2-1/2	GL	MO	LC	3	PVPI	435	
DHV-106	2	C-6	B	P	2-1/2	GL	MO	LC	3	PVPI	435	
DHV-110	2	D-4	B	A	10	GL	MO	O	1	EF-1F	340B	DHV-110 and DHV-111 are Control Valves. Proper Operation is verified by stroke and control verification performed in Surveillance Procedures.
DHV-111	2	D-6	B	A	10	GL	MO	O	1	EF-1F	340E	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Decay Heat Removal						SYSTEM TAG: DH				DRAWING: FD-302-641, SHEET 2 OF 3		
DHV-3	1	B-2	B	A	12	GA	MO	C	2	EF-2F	435	V-320, CS-121
DHV-4	1	B-2	B	A	12	GA	MO	C	2	EF-2F	435	V-320, CS-121
DHV-33	2	D-8	C	A	14	CK	SA	---	1 3	EF-1F EF-3I	340B 620	DHV-33 is disassembled & inspected. FPC to NRC letter 3F1091-01. ESA Signal: LPI
DHV-34	2	D-8	B	A	14	GA	MO	O	1	EF-1F	340B	
DHV-35	2	E-8	B	A	14	GA	MO	O	1	EF-1F	340E	ESA Signal: LPI
DHV-36	2	E-8	C	A	14	CK	SA	---	1 3	EF-1F EF-3I	340E 620	DHV-36 is disassembled & inspected. FPC to NRC letter 3F1091-01.
DHV-37	2	D-4	C	A	3/4	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
DHV-38	2	E-5	C	A	3/4	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
DHV-39	2	D-4	B	A	14	GA	MO	C	1	EF-1F	340B	

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TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
DHV-40	2	E-4	B	A	14	GA	MO	C	1	EF-1F	340E	
DHV-41	2	C-3	B	A	12	GA	MO	C	1	EF-1F	340B	
DHV-42	2	D-3	B	A	14	GA	MO	C	1	EF-1F	340B	
DHV-43	2	E-3	B	A	14	GA	MO	C	1	EF-1F	340E	
DHV-44	2	C-1	C	A	3/4	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
DHV-75	2	D-5	B	P	2-1/2	GA	MO	C	3	PVPI	435	
DHV-76	2	E-6	B	P	2-1/2	GA	MO	C	3	PVPI	435	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Diesel Generator Coolant					SYSTEM TAG: DJ				DRAWING: FD-302-283, SHEET 1 OF 1			
DJV-1	3	F-4	C	A		CK	SA	---	3 1 1	EF-3F EF-1P EF-1B	457 354A 354A	V-131
DJV-2	3	F-4	C	A		CK	SA	---	3 1 1	EF-3F EF-1P EF-1B	457 354B 354B	V-131
DJV-17	3	F-6	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354A	V-131
DJV-18	3	F-6	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354B	V-131
DJV-27	3	C-5	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354A	V-132

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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(continued from previous page)

DJV-28	3	C-5	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354B	V-132
DJV-29	3	C-6	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354A	V-132
DJV-30	3	C-6	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354B	V-132
DJV-31	3	D-4	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354A	V-132
DJV-32	3	D-4	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354B	V-132

SYSTEM NAME: Diesel Generator Coolant						SYSTEM TAG: DJ			DRAWING: FD-302-284, SHEET 1 OF 1			
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DJV-38	3	C-4	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354A	V-132
DJV-39	3	C-4	C	A		CK	SA	---	3 1	EF-3F EF-1P	457 354B	V-132

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Diesel Lube Oil						SYSTEM TAG: DL				DRAWING: FD-302-285, SHEET 1 OF 1		
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DLV-013	3	F-5	C	A		CK	SA	---	1	EF-1B	354A	
DLV-014	3	F-5	C	A		CK	SA	---	1	EF-1B	354B	
DLV-017	3	D-5	C	A		CK	SA	---	1	EF-1B	354A	
DLV-018	3	D-5	C	A		CK	SA	---	1	EF-1B	354B	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Domestic Water						SYSTEM TAG: DO				DRAWING: FD-302-211, SHEET 1 OF 1		
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DOV-376	3	C-6	C	A	1-1/2	CK	SA	---	1	EF-1B	344A	
DOV-377	3	D-6	C	A	1-1/2	CK	SA	---	1	EF-1B	344B	



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Demineralized Water			SYSTEM TAG: DW			DRAWING: FD-302-182, SHEET 2 OF 3						
DWV-160	2	E-6	A	A	3	GA	MO	O	2 3	EF-2F SLT-1	435 179C	ESA Signal: RB Isolation CS-140, V-320
DWV-162	2	E-5	A,C	A	3	CK	SA	O	3	SLT-1	179C	V-150

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Emergency Feedwater					SYSTEM TAG: EF					DRAWING: FD-302-082, SHEET 1 OF 3		
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EFV-5	3	C-4	C	A	6	CK	SA	C	2 1	EF-2F EF-1P	349B 349B	V-320, CS-153
EFV-6	3	G-4	C	A	6	CK	SA	C	2 1	EF-2F EF-1P	349A 349A	V-320, CS-153
EFV-7	3	F-4	C	A	6	SCK	SA	C	2 2	EF-2F EF-2B	349A 349B	V-320, CS-151
EFV-8	3	B-4	C	A	6	SCK	SA	C	2 2	EF-2F EF-2B	349B 349A	V-320, CS-151
EFV-11	3	A-6	B	A	6	GA	MO	O	1	EF-1F	349B	
EFV-14	3	B-6	B	A	6	GA	MO	O	1	EF-1F	349B	
EFV-15	3	B-7	C	A	6	CK	SA	C	2	EF-2F	349A	V-320, CS-152
EFV-16	3	A-7	C	A	6	CK	SA	C	2	EF-2F	349A	V-320, CS-152
EFV-17	3	A-7	C	A	6	CK	SA	C	2	EF-2F	349B	V-320, CS-152

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
EFV-18	3	A-7	C	A	6	CK	SA	C	2	EF-2F	349B	V-320, CS-152
EFV-32	3	A-6	B	A	6	GA	MO	O	1	EF-1F	349B	
EFV-33	3	A-6	B	A	6	GA	MO	O	1	EF-1F	349B	
EFV-34	3	B-4	C	A	1	CK	SA	---	1	EF-1F	349B	
EFV-35	3	F-4	C	A	1	CK	SA	---	1	EF-1F	349A	
EFV-55	2	D-9	B	A	4	GL	SO	TH	1	EF-1F	349B	V-364 Alternate method of remote to local position verification is also performed in SP-349B, during Cold Shutdown Outages, as required.
EFV-56	2	D-8	B	A	4	GL	SO	TH	1	EF-1F	349B	V-364 Alternate method of remote to local position verification is performed in SP-349B, when required during Cold Shutdown Outages.

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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(continued from previous page)

EFV-57	2	D-9	B	A	4	GL	SO	TH	1	EF-1F	349B	V-364 Alternate method of remote to local position verification is performed in SP-349B, during Cold Shutdown Outages, as required.
EFV-58	2	D-7	B	A	4	GL	SO	TH	1	EF-1F	349B	V-364 Alternate method of remote to local position verification is performed in SP-349B, during Cold Shutdown Outages, as required.

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Emergency Feedwater						SYSTEM TAG: EF				DRAWING: FD-302-082, SHEET 2 OF 3		
EFV-91	3	G-4	C	A	2	CK	SA	---	1	EF-1B	349A	
EFV-97	3	B-4	C	A	6	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
EFV-98	3	B-5	C	A	8	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
EFV-99	3	B-4	C	A	6	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
EFV-100	3	B-5	C	A	8	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Emergency Diesel Generator						SYSTEM TAG: EG			DRAWING: FD-302-282, SHEET 1 OF 1			
EGV-5	3	E-2	C	A	3/4	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
EGV-6	3	E-3	C	A	3/4	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
EGV-7	3	E-6	C	A	3/4	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.
EGV-8	3	E-8	C	A	3/4	REL	SA	---	5	TF-4	602	V-115 "As Found" test required prior to performing any maintenance.

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
EGV-21	3	G-2	C	A	1	CK	SA	C	1	EF-1B	370	
EGV-22	3	G-3	C	A	1	CK	SA	C	1	EF-1B	370	
EGV-23	3	G-6	C	A	1	CK	SA	C	1	EF-1B	370	
EGV-24	3	G-8	C	A	1	CK	SA	C	1	EF-1B	370	
EGV-35	3	E-1	B	P	1-1/2	BL	M	O	1	PVPI	354-A	Verified monthly.
EGV-36	3	D-2	C	A	1/4	3-Way	SO	O	1	EF-1F	354-A	
EGV-37	3	C-2	C	A	1/4	3-Way	SO	O	1	EF-1F	354-A	
EGV-39	3	E-8	B	P	1-1/2	BL	M	O	1	PVPI	354-B	Verified monthly.
EGV-40	3	D-8	C	A	1/4	3-Way	SO	O	1	EF-1F	354-B	
EGV-41	3	D-8	C	A	1/4	3-Way	SO	O	1	EF-1F	354-B	
EGV-56	3	D-2	B	A	1-1/2	GA	SA	O	1	EF-1F	354-A	
EGV-57	3	D-2	B	A	1-1/2	GA	SA	O	1	EF-1F	354-A	
EGV-58	3	E-8	B	A	1-1/2	GA	SA	O	1	EF-1F	354-B	
EGV-59	3	D-8	B	A	1-1/2	GA	SA	O	1	EF-1F	354-B	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Fire Service						SYSTEM TAG: FS				DRAWING: FD-302-231, SHEET 1 OF 5		
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FSV-261	2	D-3	A	P	4	GA	M	LC	3	SLT-1	179C	
FSV-262	2	E-3	A,C	P	4	CK	SA	C	3	SLT-1	179C	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Feedwater						SYSTEM TAG: FW				DRAWING: FD-302-081, SHEET 1 OF 4		
FWV-29	2	C-6	B	A	18	GA	MO	O	2	EF-2F	435	V-320, CS-190
FWV-30	2	C-3	B	A	18	GA	MO	O	2	EF-2F	435	V-320, CS-190
FWV-31	2	C-3	B	A	10	GA	MO	O	2	EF-2F	435	V-320, CS-190
FWV-32	2	C-7	B	A	10	GA	MO	O	2	EF-2F	435	V-320, CS-190
FWV-33	2	D-6	B	A	6	GA	MO	O	2	EF-2F	435	V-320, CS-190
FWV-34	2	E-5	B	P	6	GA	MO	LC	3	PVPI	435	
FWV-35	2	E-2	B	P	6	GA	MO	LC	3	PVPI	435	
FWV-36	2	D-2	B	A	6	GA	MO	O	2	EF-2F	435	V-320, CS-190
FWV-43	2	E-6	A/C	A	6	CK	SA	C	2 1 3	EF-2F EF-1B SLT-1	349A 349B 604	V-320, CS-180
FWV-44	2	E-2	A/C	A	6	CK	SA	C	2 1 3	EF-2F EF-1B SLT-1	349A 349B 604	V-320, CS-180

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Feedwater						SYSTEM TAG: FW				DRAWING: FD-302-081, SHEET 2 OF 4		
FWV-14	3	F-3	B	A	18	GA	MO	0	2	EF-2F	435	V-320, CS-190
FWV-15	3	F-2	B	A	18	GA	MO	0	2	EF-2F	435	V-320, CS-190
FWV-28	3	A-2	B	A	18	GA	MO	0	2	EF-2F	435	V-320, CS-190



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Instrument Air						SYSTEM TAG: IA				DRAWING: FD-302-271, SHEET 1 OF 3		
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IAV-28	2	D-2	A	P	2	GA	M	LC	3	SLT-1	179C	
IAV-29	2	E-2	A	P	2	GA	M	LC	3	SLT-1	179C	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Leak Rate Testing						SYSTEM TAG: LR				DRAWING: FD-302-722, SHEET 1 OF 1		
LRV-36	2	F2	A	P	8	GA	M	LC	3	SLT-1	179C	
LRV-44	2	G4	A	P	2	GL	M	LC	3	SLT-1	179C	
LRV-45	2	G-5	A	P	2	GL	M	LC	3	SLT-1	179C	
LRV-46	2	G-5	A	P	1	GL	M	LC	3	SLT-1	179C	
LRV-50	2	G-2	A	P	8	GA	M	LC	3	SLT-1	179C	
LRV-87	2	G-1	A	P	3	GA	M	LC	3	SLT-1	179C	
LRV-88	2	G-2	A	P	3	GA	M	LC	3	SLT-1	179C	
LRV-89	2	G-3	A	P	3	GA	M	LC	3	SLT-1	179C	
LRV-90	2	G-3	A	P	3	GA	M	LC	3	SLT-1	179C	
LRV-91	2	G-4	A	P	3	GA	M	LC	3	SLT-1	179C	
LRV-92	2	G-4	A	P	3	GA	M	LC	3	SLT-1	179C	
LRV-93 *	2	G-3	A	P	3	GA	M	LC	3	SLT-1	179C	
LRV-94	2	G-3	A	P	3	GA	M	LC	3	SLT-1	179C	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Leak Rate Testing						SYSTEM TAG: LR			DRAWING: FD-302-723, SHEET 1 OF 1			
LRV-70	2	B-2	A	A	6	GL	SO	C	1	EF-1F	370	V-210, V-366 Alternate method of remote to local position verification is also performed in SP-179C.
									1	ET-002	370	
									1	EF-5	370	
									3	SLT-1	179C	
LRV-71	2	B-2	A	A	6	GL	SO	C	1	EF-1F	370	V-210, V-366 Alternate method of remote to local position verification is also performed in SP-179C.
									1	ET-002	370	
									1	EF-5	370	
									3	SLT-1	179C	
LRV-72	2	B-2	A	A	6	GL	SO	C	1	EF-1F	370	V-210, V-366 Alternate method of remote to local position verification is also performed in SP-179C.
									1	ET-002	370	
									1	EF-5	370	
									3	SLT-1	179C	
LRV-73	2	B-2	A	A	6	GL	SO	C	1	EF-1F	370	V-210, V-366 Alternate method of remote to local position verification is also performed in SP-179C.
									1	ET-002	370	
									1	EF-5	370	
									3	SLT-1	179C	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Main Steam					SYSTEM TAG: MS				DRAWING: FD-302-011, SHEET 1 OF 4			
MSV-25	2	C-1	B	A	6	GA	A	C	2 2	EF-2F EF-6	*	*PT-320, ADV/TBV Time Response, specifically for MSV-25 and MSV-26, is the documented test for these valves. SP-435 documents the requirement that this test needs to be performed. V-320, CS-211
MSV-26	2	F-1	B	A	6	GA	A	C	2 2	EF-2F EF-6	*	
MSV-33	2	B-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance MSSV's.
MSV-34	2	C-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance MSSV's.
MSV-35	2	E-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance MSSV's.

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
MSV-36	2	F-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance MSSV's.
MSV-37	2	B-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance MSSV's.
MSV-38	2	C-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance MSSV's.
MSV-39	2	E-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance MSSV's.
MSV-40	2	C-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance MSSV's.

(continued on next page)



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
MSV-41	2	F-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance MSSV's.
MSV-42	2	B-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance
MSV-43	2	C-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance
MSV-44	2	E-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance
MSV-45	2	F-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
MSV-46	2	B-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance
MSV-47	2	E-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance
MSV-48	2	F-2	C	A	6	REL	SA	---	4	TF-3	650	V-115 "As Found" test is required prior to performing any maintenance
MSV-55	2	D-3	C	A	6	SCK	MO	O	1 1 2 3	EF-1F EF-1P EF-2F EF-3I	349-B 349-B 349-B 620	Time-stroke exercise and check valve full-stroke exercise are both performed in SP-349-B. V-220, V-320, CS-213

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
MSV-56	2	G-3	C	A	6	SCK	MO	O	1	EF-1F	349-B	Time-stroke exercise and check valve full-stroke exercise are both performed in SP-349-B. V-220, V-320, CS-213
									1	EF-1P	349-B	
									2	EF-2F	349-B	
									3	EF-31	620	
MSV-411	2	B-5	B	A	24	GL	A	O	2	EF-2F	435	V-320, CS-212
									2	EF-6	435	
									1	EF-1P	343	
MSV-412	2	C-4	B	A	24	GL	A	O	2	EF-2F	435	V-320, CS-212
									2	EF-6	435	
									1	EF-1P	343	
MSV-413	2	E-4	B	A	24	GL	A	O	2	EF-2F	435	V-320, CS-212
									2	EF-6	435	
									1	EF-1P	343	
MSV-414	2	F-4	B	A	24	GL	A	O	2	EF-2F	435	V-320, CS-212
									2	EF-6	435	
									1	EF-1P	343	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Main Steam						SYSTEM TAG: MS			DRAWING: FD-302-011, SHEET 2 OF 4			
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MSV-114	2	A-3	A	P	1-1/2	GL	M	LC	3	SLT-1	179C	
MSV-128	2	H-2	A	P	4	GL	M	LC	3	SLT-1	179C	
MSV-130	2	H-3	A	A	3	GL	A	C	2 2 3	EF-2F EF-6 SLT-1	435 435 179C	V-320, CS-210
MSV-132	2	A-7	A	P	1-1/2	GL	M	LC	3	SLT-1	179C	
MSV-146	2	H-6	A	P	4	GL	M	LC	3	SLT-1	179C	
MSV-148	2	H-7	A	A	3	GL	A	C	2 2 3	EF-2F EF-6 SLT-1	435 435 179C	V-320, CS-210

SYSTEM NAME: Main Steam						SYSTEM TAG: MS			DRAWING: FD-302-051, SHEET 1 OF 1			
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MSV-186	3	E-7	C	A	6	CK	SA	C	1 3	EF-1P EF-2F EF-3I	349B 349B 620	V-221, V-320, CS-214
MSV-187	3	E-7	C	A	6	CK	SA	C	1 3	EF-1P EF-2F EF-3I	349B 349B 620	V-221, V-320, CS-214

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Make Up & Purification			SYSTEM TAG: MU			DRAWING: FD-302-661, SHEET 1 OF 5						
MUV-40	1	A-4	A	A	2-1/2	GA	MO	O	2 3	EF-2F SLT-1	435 179C	ESA Signal: RB Isolation V-320, CS-222
MUV-41	1	C-4	A	A	2-1/2	GA	MO	O	2 3	EF-2F SLT-1	435 179C	ESA Signal: RB Isolation V-320, CS-222
MUV-49	2	B-5	A	A	2-1/2	GA	A	O	2 2 2 3	EF-2F EF-6 ET-002 SLT-1	435 435 435 179C	V-210, V-320, CS-223
MUV-505	1	C-4	A	A	3	GA	MO	O	2 3	EF-2F SLT-1	435 179C	ESA Signal: RB Isolation V-320, CS-222



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Make Up & Purification						SYSTEM TAG: MU				DRAWING: FD-302-661, SHEET 2 OF 5		
MUV-53	2	G-1	B	A	4	GL	MO	O	2	EF-2F	435	V-320, CS-224
MUV-253	2	C-4	A	A	1	GL	A	O	2 2 3	EF-2F EF-6 SLT-1	435 435 179C	V-320, CS-226
MUV-257	2	H-1	B	A	4	GL	MO	O	2	EF-2F	435	V-320, CS-224
MUV-258	2	D-2	A	A	1	GL	MO	O	2 3	EF-2F SLT-1	435 179C	ESA Signal: RB Isolation V-320, CS-226
MUV-259	2	C-2	A	A	1	GL	MO	O	2 3	EF-2F SLT-1	435 179C	ESA Signal: RB Isolation V-320, CS-226
MUV-260	2	C-2	A	A	1	GL	MO	O	2 3	EF-2F SLT-1	435 179C	ESA Signal: RB Isolation V-320, CS-226
MUV-261	2	B-2	A	A	1	GL	MO	O	2 3	EF-2F SLT-1	435 179C	ESA Signal: RB Isolation V-320, CS-226

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Make Up & Purification						SYSTEM TAG: MU				DRAWING: FD-302-661, SHEET 3 OF 5		
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MUV-18	2	F-4	B	A	4	GA	MO	O	2	EF-2F	435	V-320, CS-220
MUV-23	2	A-4	B	A	2-1/2	GL	MO	C	1	EF-1F	340C	ESA Signal: HPI
MUV-24	2	C-4	B	A	2-1/2	GL	MO	C	1	EF-1F	340C	ESA Signal: HPI
MUV-27	2	C-4	B	A	2-1/2	GA	MO	O	2	EF-2F	435	V-320, CS-221
MUV-42	1	A-2	C	A	2-1/2	CK	SA	C	3	EF-3F	630	V-190
MUV-43	1	C-2	C	A	2-1/2	CK	SA	C	3 1	EF-3F EF-1P	630 340C	V-190
MUV-160	1	A-3	C	A	2-1/2	CK	SA	C	3	EF-3F	630	V-190
MUV-161	1	C-3	C	A	2-1/2	CK	SA	C	3 1	EF-3F EF-1P	630 340C	V-190

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Make Up & Purification						SYSTEM TAG: MU			DRAWING: FD-302-661, SHEET 4 OF 5			
MUV-1	2	E-1	C	A	3	CK	SA	C	3 1 3	EF-3F EF-1P EF-3I	630 340F 620	V-191
MUV-2	2	E-1	C	A	3	SCK	SA	TH	3 1 1	EF-3F EF-1P EF-1B	630 340F 340F	V-192
MUV-3	2	D-2	B	P	4	GA	MO	LO	3	PVPI	435	
MUV-6	2	E-4	C	A	3	SCK	SA	TH	3 1 1	EF-3F EF-1P EF-1B	630 340C 340C	V-192
MUV-7	2	E-4	C	A	3	CK	SA	C	3 1 3	EF-3F EF-1P EF-3I	630 340C 620	V-191
MUV-9	2	D-6	B	P	4	GA	MO	LO	3	PVPI	435	
MUV-10	2	E-7	C	A	3	SCK	SA	TH	3 1 1	EF-3F EF-1P EF-1B	630 340C 340C	V-192
MUV-11	2	E-7	C	A	3	CK	SA	C	3 1 3	EF-3F EF-1P EF-3I	630 340C 620	V-191
MUV-25	2	A-2	B	A	2-1/2	GL	MO	C	1	EF-1F	340F	ESA Signal: HPI

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
MUV-26	2	C-2	B	A	2-1/2	GL	MO	C	1	EF-1F	340F	ESA Signal: HPI
MUV-36	1	A-4	C	A	2-1/2	CK	SA	C	3	EF-3F	630	V-190
MUV-37	1	C-4	C	A	2-1/2	CK	SA	C	3	EF-3F	630	V-190
MUV-58	2	H-2	B	A	6	GA	MO	O	1	EF-1F	340F	ESA Signal: HPI
MUV-60	2	H-2	C	A	6	CK	SA	C	3 3	EF-3I EF-3F	620 630	V-200
MUV-62	2	G-2	B	P	6	GA	MO	C/O	3	PVPI	435	
MUV-65	3	H-7	C	A	4	CK	SA	C	2	EF-2B	435	V-320, CS-225
MUV-69	2	G-6	B	P	6	GA	MO	C/O	3	PVPI	435	
MUV-72	2	F-8	C	A	6	CK	SA	C	3 3	EF-3I EF-3F	620 630	V-200
MUV-73	2	F-8	B	A	6	GA	MO	C	1	EF-1F	340C	ESA Signal: HPI
MUV-163	1	A-3	C	A	2-1/2	CK	SA	---	3	EF-3F	630	V-190
MUV-164	1	C-3	C	A	2-1/2	CK	SA	---	3	EF-3F	630	V-190

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Nitrogen						SYSTEM TAG: NG				DRAWING: FD-302-673, SHEET 2 OF 4		
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NGV-62	2	E-5	A	P	1-1/2	GA	M	LC	3	SLT-1	179C	
NGV-81	2	E-4	A	P	1-1/2	GA	M	LC	3	SLT-1	179C	
NGV-82	2	E-4	A	P	1	GA	M	LC	3	SLT-1	179C	

SYSTEM NAME: Nitrogen						SYSTEM TAG: NG				DRAWING: FD-302-082, SHEET 2 OF 3		
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NGV-249	3	B-7	C	A	1-1/2	CK	SA	---	1	EF-1B	349A	
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TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Reactor Coolant			SYSTEM TAG: RC			DRAWING: FD-302-651, SHEET 1 OF 3						
RCV-8	1	A-3	C	A	2-1/2	REL	SA	---	4	TF-3	650	V-115
RCV-9	1	A-4	C	A	2-1/2	REL	SA	---	4	TF-3	650	V-115
RCV-10	1	A-6	B	A	2-1/2	PORV	SO	C	2 3	EF-2F EF-7 TF-3	379 PT-149 CONTRACT	*Cycled in OP-202 During Heat Up Routinely calibrated by contract. V-320
RCV-11	1	B-6	B	A	2-1/2	GA	MO	O	1	EF-1F	370	
RCV-157	2	E-1	B	A	1/2	GL	SO	C	3	EF-3F EF-7 ET-002	410 410 410	V-210 Tested during Refueling outages per NUREG 0737 committment.
RCV-158	2	F-1	B	A	1/2	GL	SO	C	3	EF-3F EF-7 ET-002	410 410 410	V-210 Tested during Refueling outages per NUREG 0737 committment.
RCV-159	2	A-5	B	A	1/2	GL	SO	C	3	EF-3F EF-7 ET-002	410 410 410	V-210 Tested during Refueling outages per NUREG 0737 committment.
RCV-160	2	A-4	B	A	1/2	GL	SO	C	3	EF-3F EF-7 ET-002	410 410 410	V-210 Tested during Refueling outages per NUREG 0737 committment.
RCV-163	2	C-10	B	A	1/2	GL	SO	C	3	EF-3F EF-7 ET-002	410 410 410	V-210 Tested during Refueling outages per NUREG 0737 committment.

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
RCV-164	2	C-10	B	A	1/2	GL	SO	C	3	EF-3F EF-7 ET-002	410 410 410	V-210 Tested during Refueling outages per NUREG 0737 committment.
RCV-168	1		C	A	14	CK	SA	C	3	EF-3I	202	RCV-168 through RCV-175 are the Reactor Vessel Internal Vent Valves. These valves are not located on the flow diagram as only the reactor is shown. SP-202 performs a manual exercise on these valves on a refueling basis when accessable, and also performs a visual inspection.
RCV-169	1		C	A	14	CK	SA	C	3	EF-3I	202	
RCV-170	1		C	A	14	CK	SA	C	3	EF-3I	202	
RCV-171	1		C	A	14	CK	SA	C	3	EF-3I	202	
RCV-172	1		C	A	14	CK	SA	C	3	EF-3I	202	
RCV-173	1		C	A	14	CK	SA	C	3	EF-3I	202	
RCV-174	1		C	A	14	CK	SA	C	3	EF-3I	202	
RCV-175	1		C	A	14	CK	SA	C	3	EF-3I	202	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Nuclear Service & Decay Heat See Water						SYSTEM TAG: R/W			DRAWING: FD-302-611, SHEET 1 OF 1			
RWV-34	3	E-6	C	A	20	CK	SA	---	1	EF-1F	340D	
									1	EF-1B	340D	
RWV-35	3	E-5	C	A	24	CK	SA	---	1	EF-1F	344B	
									1	EF-1B	344A	
RWV-36	3	E-5	C	A	24	CK	SA	---	1	EF-1B	344A	
RWV-37	3	E-3	C	A	20	CK	SA	---	1	EF-1F	340A	
									1	EF-1B	340A	
RWV-38	3	E-4	C	A	24	CK	SA	---	1	EF-1F	344A	
									1	EF-1B	344B	
RWV-128	3	F-3	C	A	1-1/2	CK	SA	---	1	EF-1F	340A	
									1	EF-1B	344A	
RWV-129	3	F-4	C	A	1-1/2	CK	SA	---	1	EF-1F	340D	
									1	EF-1B	340A	
RWV-130	3	F-5	C	A	1-1/2	CK	SA	---	1	EF-1B	340D	
RWV-131	3	F-6	C	A	1-1/2	CK	SA	---	1	EF-1F	344B	
									1	EF-1B	340D	

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
RWV-132	3	F-6	C	A	1-1/2	CK	SA	---	1 1	EF-1F EF-1B	340D 344B	
RWV-133	3	F-3	C	A	1-1/2	CK	SA	---	1	EF-1F	340D	
RWV-134	3	F-6	C	A	1-1/2	CK	SA	---	1	EF-1F	340D	
RWV-150	3	A-2	*	*	16	BF	A	O/C	1**	***	340D	Only solenoids in Air Oper. Safety Related

\* - Control Valve with Fail Safe Position

\*\* - Surveillance performed if valve is in service or when returned to service.

\*\*\* - Valve verified to Close concurrent with RWP-3B start.

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Station Air			SYSTEM TAG: SA					DRAWING: FD-302-271, SHEET 2 OF 3				
SAV-24	2	F-4	A	P	3	GA	M	LC	3	SLT-1	179C	



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Spent Fuel Cooling						SYSTEM TAG: SF				DRAWING: FD-302-621, SHEET 1 OF 3		
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SFV-18	2	F-1	A	P	10	GA	M	LC	3	SLT-1	179C	
SFV-19	2	F-2	A	P	10	GA	M	LC	3	SLT-1	179C	
SFV-26	3	D-5	C	A	10	CK	SA	---	1	EF-1F	334A	
									1	EF-1B	334B	
SFV-27	3	F-5	C	A	10	CK	SA	---	1	EF-1F	334B	
									1	EF-1B	334A	

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Nuclear Services Closed Cycle Cooling						SYSTEM TAG: SW			DRAWING: FD-302-601, SHEET 1 OF 5			
SWV-35	2	F-1	B	A	8	BF	A	O	1	EF-1F	344C	
SWV-37	2	F-3	B	A	8	BF	A	O	1	EF-1F	344C	
SWV-39	2	F-5	B	A	8	BF	A	O	1	EF-1F	344C	
SWV-41	2	F-2	B	A	8	BF	A	O	1	EF-1F	344C	
SWV-43	2	F-5	B	A	8	BF	A	O	1	EF-1F	344C	
SWV-45	2	F-7	B	A	8	BF	A	O	1	EF-1F	344C	
SWV-47	2	B-7	B	A	8	BF	A	O	2 2	EF-2F EF-6	435 435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-281
SWV-48	2	B-6	B	A	8	BF	A	O	2 2	EF-2F EF-6	435 435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-281
SWV-49	2	B-5	B	A	8	BF	A	O	2 2	EF-2F EF-6	435 435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-281
SWV-50	2	B-4	B	A	8	BF	A	O	2 2	EF-2F EF-6	435 435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-281
SWV-109	2	C-8	B	A	3	GA	A	O	2 2	EF-2F EF-6	435 435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-283

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
SWV-110	2	B-9	B	A	3	GA	A	O	2 2	EF-2F EF-6	435 435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-283
SWV-151	3	H-7	B	A	10	BF	A	O	1 1	EF-1F EF-5	344A 344A	ESA Signal: Isolates CI on ES Signal.
SWV-152	3	H-6	B	A	10	BF	A	O	1 1	EF-1F EF-5	344A 344A	ESA Signal: Isolates CI on ES Signal.
SWV-353	3	H-7	B	A	16	BF	A	C	1 1	EF-1F EF-5	344A 344A	ESA Signal: Opens On RB Isolation.
SWV-354	3	H-7	B	A	16	BF	A	C	1 1	EF-1F EF-5	344A 344A	ESA Signal: Opens On RB Isolation.
SWV-355	3	H-7	B	A	10	BF	A	O	1 1	EF-1F EF-5	344A 344A	ESA Signal: Isolates CI on ES Signal.

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Nuclear Services Closed Cycle Cooling						SYSTEM TAG: SW			DRAWING: FD-302-601, SHEET 2 OF 5			
SWV-79	2	E-10	B	A	6	BF	A	O	2	EF-2F	435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-282
									2	EF-6	435	
SWV-80	2	F-7	B	A	6	BF	A	O	2	EF-2F	435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-282
									2	EF-6	435	
SWV-81	2	F-5	B	A	6	BF	A	O	2	EF-2F	435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-282
									2	EF-6	435	
SWV-82	2	F-2	B	A	6	BF	A	O	2	EF-2F	435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-282
									2	EF-6	435	
SWV-83	2	E-9	B	A	6	BF	A	O	2	EF-2F	435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-282
									2	EF-6	435	
SWV-84	2	E-6	B	A	6	BF	A	O	2	EF-2F	435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-282
									2	EF-6	435	

(continued on next page)

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
SWV-85	2	E-4	B	A	6	BF	A	O	2	EF-2F	435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-282
									2	EF-6	435	
SWV-86	2	E-1	B	A	6	BF	A	O	2	EF-2F	435	ESA Signal: RB Isolation. Not subject to Type "C" testing. V-320, CS-282
									2	EF-6	435	



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Nuclear Services Closed Cycle Cooling						SYSTEM TAG: SW				DRAWING: FD-302-601, SHEET 3 OF 5		
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SWV-8	3	B-3	C	A	14	CK	SA	---	1 1	EF-1F EF-1B	344A 344B	
SWV-9	3	C-3	C	A	14	CK	SA	---	1 1	EF-1F EF-1B	344B 344A	
SWV-10	3	D-3	C	A	18	CK	SA	---	1	EF-1B	344A	
SWV-199	3	B-7	C	A	1	REL	SA	---	5	TF-4	602	
SWV-412	3	A-3	C	A	14	CK	SA	---	1 1	EF-1F EF-1B	344A 344B	
SWV-413	3	B-3	C	A	14	CK	SA	---	1 1	EF-1F EF-1B	344B 344A	
SWV-730	3	D-10	C	A	3/8	CK	SA	---	1	EF-1B	344A	
SWV-731	3	D-10	C	A	3/8	CK	SA	---	1	EF-1B	344A	

V-115  
"As Found" test  
required prior to  
performing any  
maintenance.

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Nuclear Services Closed Cycle Cooling						SYSTEM TAG: SW				DRAWING: FD-302-601, SHEET 4 OF 5		
SWV-12	3	B-7	B	A	12	BF	A	O	2 2	EF-2F EF-6	435 435	V-320, CS-280

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
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SYSTEM NAME: Liquid Waste Disposal System						SYSTEM TAG: WD-LW				DRAWING: FD-302-681, SHEET 1 OF 6		
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WDV-3	2	B-3	A	A	4	GA	MO	O	1 3	EF-1F SLT-1	370 179C	ESA Signal: Close on HPI or RB Isolation
WDV-4	2	B-4	A	A	4	DA	A	O	1 1 3	EF-1F EF-5 SLT-1	370 370 179C	ESA Signal: Close on HPI or RB Isolation
WDV-61	2	A-4	A	A	2	DA	A	C	1 1 3	EF-1F EF-5 SLT-1	370 370 179C	ESA Signal: RB Isolation

SYSTEM NAME: Liquid Waste Disposal System						SYSTEM TAG: WD-LW				DRAWING: FD-302-681, SHEET 3 OF 6		
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WDV-60	2	A-4	A	A	2	GA	MO	C	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation
WDV-62	2	C-4	A	A	3	DA	A	C	1 1 3	EF-1F EF-5 SLT-1	370 370 179C	ESA Signal: RB Isolation
WDV-94	2	C-4	A	A	3	GL	MO	C	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Gas Waste Disposal System						SYSTEM TAG: WD-GW				DRAWING: FD-302-691, SHEET 1 OF 3		
WDV-405	2	A-3	A	A	1-1/2	GL	MO	O	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation
WDV-406	2	A-2	A	A	1-1/2	GL	MO	O	1 3	EF-1F SLT-1	370 179C	ESA Signal: RB Isolation

TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
SYSTEM NAME: Containment Monitoring System						SYSTEM TAG: WS-CM				DRAWING: FD-302-693, SHEET 1 OF 1		
WSV-1	2	D-3	A	P	1	DA	M	LC	3	SLT-1	179C	
WSV-2	2	D-4	A	P	1	DA	M	LC	3	SLT-1	179C	
WSV-3	2	E-3	A	A	1	GL	A	O	1	EF-1F	370	V-210 ESA Signal: RB Isolation
									1	ET-5	370	
									1	ET-002	370	
									3	SLT-1	179C	
WSV-4	2	E-4	A	A	1	GL	A	O	1	EF-1F	370	V-210 ESA Signal: RB Isolation
									1	ET-5	370	
									1	ET-002	370	
									3	SLT-1	179C	
WSV-5	2	F-3	A	A	1	GL	A	O	1	EF-1F	370	V-210 ESA Signal: RB Isolation
									1	ET-5	370	
									1	ET-002	370	
									3	SLT-1	179C	
WSV-6	2	F-4	A	A	1	GL	A	O	1	EF-1F	370	V-210 ESA Signal: RB Isolation
									1	ET-5	370	
									1	ET-002	370	
									3	SLT-1	179C	
WSV-26	2	B-5	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-27	2	B-5	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-28	2	B-4	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed

(continued on next page)



TABLE 1 (continued)  
VALVES TESTED IN ACCORDANCE WITH ASME CODE REQUIREMENTS OR GRANTED RELIEF

Valve Number	ASME Class	Dwg. Co-ord	Val. Cat.	Act/ Pass	Size in Inches	Valve Type	Act. Type	Norm. Pos.	Test Freq	Test Method	Surv. Proc.	Remarks
(continued from previous page)												
WSV-29	2	B-4	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-30	2	B-3	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-31	2	B-3	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-32	2	B-5	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-33	2	B-5	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-34	2	C-3	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-35	2	C-4	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-38	2	B-4	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-39	2	B-4	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-40	2	G-2	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-41	2	G-3	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-42	2	G-3	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed
WSV-43	2	G-2	A	P	1/2	GL	SO	LC	3	SLT-1	179C	Locked Closed

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Reactor Building Purge	SYSTEM TAG: AH	DRAWING: FD-302-751, SHEET 1 OF 1
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AHV-024	G-4	Test Connection Penetration 113	TEST CONN.	IWV-1200(a)	
AHV-025	B-4	Test Connection Penetration 357	TEST CONN.	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Auxilliary Steam		SYSTEM TAG: AS		DRAWING: FD-302-051. SHEET 1 OF 1	
ASV-079	E-7	Root Isolation to MSDT-20	DRAIN	IWV-1200(a)	
ASV-080	E-7	Root Isolation to MSDT-19	DRAIN	IWV-1200(a)	
ASV-089	F-7	Root Isolation to ASDT-12	DRAIN	IWV-1200(a)	
ASV-090	F-7	Root Isolation to ASDT-13	DRAIN	IWV-1200(a)	
ASV-091	G-7	Root Isolation to ASDT-14	DRAIN	IWV-1200(a)	
ASV-092	G-7	Root Isolation to ASDT-15	DRAIN	IWV-1200(a)	
ASV-157	E-6	Root Isolation to ASDT-16	DRAIN	IWV-1200(a)	
ASV-160	E-7	Root Isolation to ASDT-18	DRAIN	IWV-1200(a)	
ASV-163	D-7	Root Isolation to ASDT-17	DRAIN	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

ASV-169	F-7	ASV-5/204 Bypass	DRAIN	IWV-1200(a)	
ASV-198	C-3	Isol to AS-36/37-PS1/2	INST. ROOT	IWV-1200(a)	
ASV-200	C-4	Isol to AS-36/37-PS1	INST. ROOT	IWV-1200(a)	
ASV-215	F-7	EFP-2 Steam Inlet Vent	VENT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Reactor Building Spray	SYSTEM TAG: BS	DRAWING: FD-302-711, SHEET 1 OF 1
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BSV-011	D-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-012	D-8	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-013	D-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-014	D-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-015	F-5	3B Spray Pump Casing Drain Vlv	DRAIN	IWV-1200(a)	
BSV-018	A-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-019	A-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-020	A-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-021	C-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-029	F-4	Flush Line to Waste Disposal	DRAIN	IWV-1200(a)	
BSV-030	B-8	*REMOVED FROM SERVICE*	None	IWV-1100	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
BSV-032	C-8	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-035	H-5	3A Spray Pump Casing Drain	DRAIN	IWV-1200(a)	
BSV-038	C-4	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-040	C-5	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-041	B-4	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-042	A-4	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-043	A-4	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-044	H-4	DPT-1 Iso. Vlv	INST. ROOT	IWV-1200(a)	
BSV-045	H-4	DPT-1 Iso. Vlv	INST. ROOT	IWV-1200(a)	
BSV-046	E-4	DPT2-1 Iso. Vlv	INST. ROOT	IWV-1200(a)	
BSV-047	E-4	DPT2-1 Iso. Vlv	INST. ROOT	IWV-1200(a)	
BSV-048	G-5	PI1-2 Iso. Vlv	INST. ROOT	IWV-1200(a)	
BSV-049	E-5	PI2-2 Iso. Vlv	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
BSV-050	H-1	3A RB Pump Disch. Drain	DRAIN	IWV-1200(a)	
BSV-051	B-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-052	B-5	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-053	F-1	3A Spray Pump Disch. Drain	DRAIN	IWV-1200(a)	
BSV-054	A-5	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-055	B-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-056	B-5	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-057	D-4	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-058	D-5	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-059	F-6	PI2-9 Iso. Vlv to 3B Spray Pump	INST. ROOT	IWV-1200(a)	
BSV-060	G-6	PI1-9 Inlet Iso. Vlv	INST. ROOT	IWV-1200(a)	
BSV-062	C-4	*REMOVED FROM SERVICE*	None	IWV-1100	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
BSV-063	C-6	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-081	G-2	Train "A" Drain and Test Conn.	DRAIN/TEST	IWV-1200(a)	
BSV-082	E-2	Train "B" Drain and Test Conn.	DRAIN/TEST	IWV-1200(a)	
BSV-083	E-6	Vent	VENT	IWV-1200(a)	
BSV-084	H-6	Vent	VENT	IWV-1200(a)	
BSV-085	E-5	3B Recirc Iso. Vlv	VENT	IWV-1200(a)	
BSV-086	B-8	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-087	B-5	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-088	E-6	3B Recirc Iso. Vlv	VENT	IWV-1200(a)	
BSV-090	E-6	3B Recirc Iso. Vlv	VENT	IWV-1200(a)	
BSV-091	G-5	3A Recirc Iso. Vlv	VENT	IWV-1200(a)	
BSV-094	G-5	3A Recirc Iso. Vlv	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
BSV-096	G-6	3A Recirc Iso. Vlv	VENT	IWV-1200(a)	
BSV-097	C-4	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-098	C-5	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-099	C-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-100	C-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-101	D-4	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-102	D-5	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-103	D-6	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-104	D-8	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-150	E-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-151	E-8	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-152	D-5	INTERNALS REMOVED	None	IWV-1100	
BSV-153	D-4	INTERNALS REMOVED	None	IWV-1100	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

BSV-162	C-8	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-163	C-6	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-173	C-7	*REMOVED FROM SERVICE*	None	IWV-1100	
BSV-180	C-4	*REMOVED FROM SERVICE*	None	IWV-1100	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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<b>SYSTEM NAME:</b> Reactor Building Pressure Sensing & Testing	<b>SYSTEM TAG:</b> BS-ST			<b>DRAWING:</b> FD-302-712, SHEET 1 OF 1	
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BSV-061	B-9	Root Valve for BS-16-PT	INST. ROOT	IWV-1200(a)	
BSV-064	B-1	Root Valve for BS-17-PT	INST. ROOT	IWV-1200(a)	
BSV-105	A-3	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-106	B-2	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-107	B-3	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-108	C-2	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-109	D-3	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-110	E-2	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-111	F-3	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
BSV-112	F-2	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-113	A-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-114	B-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-115	B-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-116	C-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-117	D-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-118	E-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-119	E-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-120	F-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
BSV-121	A-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-122	B-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-123	B-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-124	C-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-125	D-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-126	E-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-127	F-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-128	F-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-133	A-3	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

BSV-134	A-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-135	A-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-136	B-10	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-137	A-3	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-138	A-5	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-139	A-7	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	
BSV-140	B-10	RB Pressure Sensing & Testing Check Vlv	INST. VALVE	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Chemical Additive & Sampling			SYSTEM TAG: CA	DRAWING: FD-302-671, SHEET 1 OF 1	
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CAV-105	G-7	Drain	DRAIN	IWV-1200(a)	
CAV-106	G-7	Vent Iso. Vlv	VENT	IWV-1200(a)	
CAV-107	H-7	Vent Iso. Vlv	VENT	IWV-1200(a)	
CAV-108	H-7	Drain	DRAIN	IWV-1200(a)	

SYSTEM NAME: Chemical Additive & Sampling			SYSTEM TAG: CA	DRAWING: FD-302-672, SHEET 1 OF 1	
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CAV-130	B-2	Press. Steam Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	
CAV-131	B-2	Press. Water Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	
CAV-132	A-2	RC Letdown Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	
CAV-133	A-4	Primary Systems Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	
CAV-152	C-2	OTSG "A" Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

CAV-153	D-2	OTSG "B" Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	
CAV-154	C-4	OTSG "A" Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	
CAV-155	D-4	OTSG "B" Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Post Accident Sampling		SYSTEM TAG: CA-PA		DRAWING: FD-302-700, SHEET 1 OF 1	
CAV-460	C-2	RCP-1A Discharge Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	
CAV-462	D-2	RCP-1C Suction Sample Drain & Test Conn.	DRAIN/TEST	IWV-1200(a)	
CAV-574	B-1	RCP-1A Discharge Sample Vent	VENT	IWV-1200(a)	
CAV-575	C-1	RCP-1C Suction Sample Vent	VENT	IWV-1200(a)	
CAV-589	A-6	Sample Cooler CAHE-5/6 Inlet Vent	VENT	IWV-1200(a)	
CAV-611	A-6	Sample Pre-Cooler CAHE-8 Drain	DRAIN	IWV-1200(a)	
CAV-612	A-7	Sample Cooler CAHE-5 Inlet Drain	DRAIN	IWV-1200(a)	
CAV-613	B-7	Sample Cooler CAHE-6 Inlet Drain	DRAIN	IWV-1200(a)	
CAV-619	B-3	Test Valve to CAV-2	DRAIN/TEST	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

CAV-620	B-3	Manual Iso. Valve to CAV-2	MAINT/TEST	IWV-1200(a)	
CAV-621	B-3	Manual Iso. Valve to CAV-431	MAINT/TEST	IWV-1200(a)	
CAV-622	B-3	Test Valve to CAV-431	DRAIN/TEST	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Condensate		SYSTEM TAG: CD		DRAWING: FD-302-101, SHEET 2 OF 3	
CDV-048	C-1	CD Storage Tank Level Sensing	INST. ROOT	IWV-1200(a)	
CDV-102	C-3	CD Stg. Tank Lower Iso.	NONE	IWV-1100	
CDV-127	C-2	CST Sample Root	NONE	IWV-1100	
CDV-142	C-2	Auxiliary Connection	NONE	IWV-1100	
CDV-173	B-2	Auxiliary Connection	NONE	IWV-1100	
CDV-174	B-2	Auxiliary Connection	NONE	IWV-1100	
CDV-175	C-2	Auxiliary Connection	NONE	IWV-1100	
CDV-216	C-3	Vent of EFP Supply Header	VENT	IWV-1200(a)	
CDV-263	C-2	CST Local Sample Vlv	NONE	IWV-1100	
CDV-264	C-2	CST Sample Iso.	NONE	IWV-1100	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Core Flood		SYSTEM TAG: CF		DRAWING: FD-302-702, SHEET 1 OF 1	
CFV-021	D-7	Iso. Vlv to LT-3	INST. ROOT	IWV-1200(a)	
CFV-022	D-8	Iso. Vlv to LT-4	INST. ROOT	IWV-1200(a)	
CFV-030	C-8	Iso. Vlv to PT-4	INST. ROOT	IWV-1200(a)	
CFV-031	D-8	Iso. Vlv to LT-4	INST. ROOT	IWV-1200(a)	
CFV-032	C-7	Iso. Vlv to PT-3	INST. ROOT	IWV-1200(a)	
CFV-033	D-7	Iso. Vlv to LT-3	INST. ROOT	IWV-1200(a)	
CFV-034	C-4	Isl. Vlv PT-2	INST. ROOT	IWV-1200(a)	
CFV-035	D-4	Root Vlv LT-2	INST. ROOT	IWV-1200(a)	
CFV-036	D-3	Iso. Vlv to LT-1	INST. ROOT	IWV-1200(a)	
CFV-037	C-3	Root Vlv PT-1	INST. ROOT	IWV-1200(a)	
CFV-040	D-3	Root Vlv LT-1	INST. ROOT	IWV-1200(a)	
CFV-041	D-4	Root Vlv LT-2	INST. ROOT	IWV-1200(a)	
CFV-045	E-5	"A" CFT Sample and Drain Hdr. Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
CFV-046	B-9	"B" CFT Nitrogen Supply Line Drn.	TEST CONN.	IWV-1200(a)	
CFV-047	A-9	"B" CFT Fill Line Drn.	TEST CONN.	IWV-1200(a)	
CFV-048	A-2	"A" CFT Fill Line Drn.	TEST CONN.	IWV-1200(a)	
CFV-049	B-2	"A" CFT Nitrogen Line Drn. Vlv "A"	TEST CONN.	IWV-1200(a)	
CFV-050	B-5	Vent Line Drn.	VENT	IWV-1200(a)	
CFV-063	G-4	"A" CFT Disch. Line Vent	VENT/TEST	IWV-1200(a)	
CFV-064	G-7	"B" CFT Disch. Line Vent	VENT/TEST	IWV-1200(a)	
CFV-065	G-7	"B" CFT Disch. Line Vent	VENT/TEST	IWV-1200(a)	
CFV-069	B-4	"A" CFT Vent Line Vent	VENT	IWV-1200(a)	
CFV-070	B-7	"B" CFT Vent Line Vent	VENT	IWV-1200(a)	
CFV-073	D-4	"A" CFT Sample and Drain Hdr. Vent	VENT	IWV-1200(a)	
CFV-074	D-7	"B" CFT Sample and Drain Hdr. Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

CFV-075	B-3	"A" CFT Fill Line Drain	DRAIN/TEST	IWV-1200(a)	
CFV-077	B-8	"B" CFT Fill Line Drain	DRAIN/TEST	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: OTSG Chemical Cleaning		SYSTEM TAG: CG		DRAWING: FD-302-192, SHEET 1 OF 1	
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CGV-065	D-5	Test Connection Penetration 119	TEST CONN.	IWV-1200(a)	
CGV-066	D-5	Test Connection Penetration 120	TEST CONN.	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Chilled Water	SYSTEM TAG: CH	DRAWING: FD-302-756, SHEET 1 OF 1
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CHV-015	D-1	Chill Water Supply Vent	VENT	IWV-1200(a)	
CHV-016	E-5	CHHE-1A & 1B Return Hdr Vent	VENT	IWV-1200(a)	
CHV-020	A-3	Complex Cooler 3A Vent	VENT	IWV-1200(a)	
CHV-021	C-2	Inlet Hdr Drain	DRAIN	IWV-1200(a)	
CHV-022	A-4	Complex Cooler 3B Vent	VENT	IWV-1200(a)	
CHV-023	C-4	Inlet Hdr Drain	DRAIN	IWV-1200(a)	
CHV-034	C-9	Atmosphere Drain (1A)	DRAIN	IWV-1200(a)	
CHV-035	D-9	Atmosphere Drain	DRAIN	IWV-1200(a)	
CHV-040	C-3	PI-624 for Outlet	INST. ROOT	IWV-1200(a)	
CHV-041	D-2	PI-622 for Inlet	INST. ROOT	IWV-1200(a)	
CHV-042	F-2	PI-632 Outlet	INST. ROOT	IWV-1200(a)	
CHV-043	F-1	PI-630 Inlet	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
CHV-044	G-2	PI-636 Outlet	INST. ROOT	IWV-1200(a)	
CHV-045	D-5	High Side FE-659, Conn for FX	INST. ROOT	IWV-1200(a)	
CHV-046	D-4	PI-626 for Inlet	INST. ROOT	IWV-1200(a)	
CHV-047	C-4	PI-628 for Outlet	INST. ROOT	IWV-1200(a)	
CHV-052	C-6	PI-646 for Pump Suction	INST. ROOT	IWV-1200(a)	
CHV-053	D-7	PI-649 for CHHE-1A Outlet	INST. ROOT	IWV-1200(a)	
CHV-054	C-7	PI-647 for Pump Discharge	INST. ROOT	IWV-1200(a)	
CHV-055	E-6	PI-651 for Pump Suction	INST. ROOT	IWV-1200(a)	
CHV-060	F-3	AHHE-13A Control Discharge	CONTROL	IWV-1200(a)	
CHV-061	G-3	AHHE-13B Control Discharge	CONTROL	IWV-1200(a)	
CHV-067	E-7	PI-652 for Pump Discharge	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
CHV-070	C-7	CHHE-1A Supply Vent	VENT	IWV-1200(a)	
CHV-071	E-7	CHHE-1B Supply Vent	VENT	IWV-1200(a)	
CHV-072	F-3	Drain	DRAIN	IWV-1200(a)	
CHV-073	G-3	Drain	DRAIN	IWV-1200(a)	
CHV-074	C-7	CHP-1A Vent	VENT	IWV-1200(a)	
CHV-075	E-7	CHP-1B Vent	VENT	IWV-1200(a)	
CHV-078	F-7	PI-654 for CHHE-1B Outlet	INST. ROOT	IWV-1200(a)	
CHV-079	D-5	Low Side, FE-659, Conn for FX	INST. ROOT	IWV-1200(a)	
CHV-082	C-8	PI-703 Iso.	INST. ROOT	IWV-1200(a)	
CHV-083	C-9	PI-704 Iso.	INST. ROOT	IWV-1200(a)	
CHV-084	E-8	PI-705 Iso.	INST. ROOT	IWV-1200(a)	
CHV-085	E-9	PI-706 Iso.	INST. ROOT	IWV-1200(a)	
CHV-197	D-9	CHHE-1B Cooling Water Side Drn. Vlv.	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

CHV-198	C-9	CHHE-1A Cooling Water Side Drn. Vlv.	DRAIN	IWV-1200(a)	
CHV-201	D-1	SWHE-2 Drain	DRAIN	IWV-1200(a)	
CHV-207	C-8	CHHE-1A Control Valve	CONTROL	IWV-1200(a)	
CHV-208	E-8	CHHE-1N Control Valve	CONTROL	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Chilled Water		SYSTEM TAG: CH		DRAWING: FD-302-765, SHEET 1 OF 1	
CHV-088	C-8	Vent	VENT	IWV-1200(a)	
CHV-092	D-8	Drain	DRAIN	IWV-1200(a)	
CHV-093	D-7	Root PI-2-707	INST. ROOT	IWV-1200(a)	
CHV-099	E-7	Root PI-2-708	INST. ROOT	IWV-1200(a)	
CHV-103	F-8	Vent	VENT	IWV-1200(a)	
CHV-106	C-1	Vent	VENT	IWV-1200(a)	
CHV-109	C-2	Drain	DRAIN	IWV-1200(a)	
CHV-110	D-1	Root PI-1-707	INST. ROOT	IWV-1200(a)	
CHV-111	E-1	Root PI-1-708	INST. ROOT	IWV-1200(a)	
CHV-114	F-2	Drain	DRAIN	IWV-1200(a)	
CHV-116	F-1	Vent	VENT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Industrial Cooling Water		SYSTEM TAG: CI		DRAWING: FD-302-762, SHEET 1 OF 1	
CIV-086	F-5	Cavity Cooling System "A" Supply Line Test & Drn.	DRAIN/TEST	IWV-1200(a)	
CIV-087	H-5	Cavity Cooling System "B" Supply Line Test & Drn.	DRAIN/TEST	IWV-1200(a)	
CIV-089	F-3	Cavity Cooling System "A" Return Line Test & Drn.	DRAIN/TEST	IWV-1200(a)	
CIV-090	F-3	AHHE-14A Outlet Line Vent	VENT	IWV-1200(a)	
CIV-091	G-3	AHHE-14B Outlet Line Vent	VENT	IWV-1200(a)	
CIV-093	H-3	Cavity Cooling System "B" Return Line Test & Drn.	DRAIN/TEST	IWV-1200(a)	
CIV-095	H-3	AHHE-14B Outlet Line Drn.	DRAIN	IWV-1200(a)	
CIV-096	H-4	AHHE-14B Inlet Line Drn.	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

CIV-097	F-3	AHHE-14A Outlet Line Drn.	DRAIN	IWV-1200(a)	
CIV-098	F-4	AHHE-14A Inlet Line Drn.	DRAIN	IWV-1200(a)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Decay Ht Closed Cycle Cooling		SYSTEM TAG: DC		DRAWING: FD-302-631, SHEET 1 OF 3	
DCV-023	E-6	*INTERNALS REMOVED*	NONE	IWV-1100	
DCV-063	C-2	3A Surge Tank Drain	DRAIN	IWV-1200(a)	
DCV-067	B-1	3A Surge Tank Level Indication Isolation Valve	INST. ROOT	IWV-1200(a)	
DCV-068	B-1	Level Indication Isolation for 3A Surge Tank	INST. ROOT	IWV-1200(a)	
DCV-071	A-6	DC-61-FI Isolation	INST. ROOT	IWV-1200(a)	
DCV-072	B-3	Level Transmitter Isolation for 3A Surge Tank	INST. ROOT	IWV-1200(a)	
DCV-073	A-6	DC-61-FI Isolation	INST. ROOT	IWV-1200(a)	
DCV-075	D-3	Isolation to PI-1	INST. ROOT	IWV-1200(a)	
DCV-077	D-4	PI-3 Isolation	INST. ROOT	IWV-1200(a)	
DCV-079	B-5	PT-5 Isolation	INST. ROOT	IWV-1200(a)	
DCV-081	H-1	PI-41 Isolation	INST. ROOT	IWV-1200(a)	
(continued on next page)					

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

DCV-082	F-1	PI-42 Isolation	INST. ROOT	IWV-1200(a)	
DCV-085	B-5	PS-55 Isolation	INST. ROOT	IWV-1200(a)	
DCV-087	D-4	Isolation to FI-45	INST. ROOT	IWV-1200(a)	
DCV-088	D-1	Isolation to RM-L5	INST. ROOT	IWV-1200(a)	
DCV-100	C-1	Level Indication Drain for 3A Surge Tank	DRAIN	IWV-1200(a)	
DCV-101	A-2	Isolation to PI-59 3A Surge Tank	INST. ROOT	IWV-1200(a)	
DCV-121	C-3	3A Surge Tank Drain	DRAIN	IWV-1200(a)	
DCV-123	A-7	Vent	VENT	IWV-1200(a)	
DCV-125	B-10	3A Decay Heat Exchanger Vent	VENT	IWV-1200(a)	
DCV-127	C-9	Drain	DRAIN	IWV-1200(a)	
DCV-129	C-10	3A Decay Heat Exchanger Vent	VENT	IWV-1200(a)	
DCV-131	B-6	Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DCV-132	C-6	Vent	VENT	IWV-1200(a)	
DCV-133	C-6	Drain	DRAIN	IWV-1200(a)	
DCV-134	C-6	Vent	VENT	IWV-1200(a)	
DCV-135	C-6	Drain	DRAIN	IWV-1200(a)	
DCV-136	D-6	Vent	VENT	IWV-1200(a)	
DCV-137	E-6	Drain	DRAIN	IWV-1200(a)	
DCV-138	E-5	Vent	VENT	IWV-1200(a)	
DCV-139	G-5	Vent	VENT	IWV-1200(a)	
DCV-140	G-4	Drain	DRAIN	IWV-1200(a)	
DCV-141	G-4	Vent	VENT	IWV-1200(a)	
DCV-142	G-4	Drain	DRAIN	IWV-1200(a)	
DCV-143	G-4	Vent	VENT	IWV-1200(a)	
DCV-144	G-4	Drain	DRAIN	IWV-1200(a)	
DCV-145	H-4	Vent	VENT	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DCV-160	H-3	Vent	VENT	IWV-1200(a)	
DCV-161	G-2	Vent	VENT	IWV-1200(a)	
DCV-164	E-1	Vent	VENT	IWV-1200(a)	
DCV-166	G-7	Drain	DRAIN	IWV-1200(a)	
DCV-168	A-3	Vent 3A Surge Tank	VENT	IWV-1200(a)	
DCV-169	B-3	Level Transmitter Isolation for 3A Surge Tank	INST. ROOT	IWV-1200(a)	
DCV-171	C-1	Flush Line RML-5	FLUSH CONN	IWV-1200(a)	
DCV-172	C-2	Flush Line RML-5	FLUSH CONN	IWV-1200(a)	
DCV-179	G-1	Vent	VENT	IWV-1200(a)	
DCV-181	G-1	3A DHCCC Heat Exch. Drain	DRAIN	IWV-1200(a)	
DCV-183	B-10	3A DH Removal HE Drain	DRAIN	IWV-1200(a)	
DCV-187	A-2	WD Vent 3A Surge Tank	VENT	IWV-1200(a)	
DCV-190	B-2	WD Vent 3A Surge Tank	VENT	IWV-1200(a)	
(continued on next page)					

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

DCV-200	C-1	RML 5 Flush Valve	FLUSH VLV	IWV-1200(a)	
DCV-201	C-1	RML-5 Vent Valve	VENT	IWV-1200(a)	
DCV-202	C-1	RML-5 Isolation	INST. ROOT	IWV-1200(a)	
DCV-203	C-1	RML-5 Isolation	INST. ROOT	IWV-1200(a)	
DCV-204	C-1	Drain Valve	DRAIN	IWV-1200(a)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Decay Ht Closed Cycle Cooling	SYSTEM TAG: DC	DRAWING: FD-302-631. SHEET 2 OF 3
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DCV-024	C-5	*INTERNALS REMOVED*	NONE	IWV-1100
DCV-064	C-2	3B Surge Tank Drain	DRAIN	IWV-1200(a)
DCV-069	B-1	3B Surge Tank Level Indication Isolation Valve	INST. ROOT	IWV-1200(a)
DCV-070	C-1	Level Indication Isolation 3B Surge Tank	INST. ROOT	IWV-1200(a)
DCV-074	C-3	Level Transmitter Isolation 3B Surge Tank	INST. ROOT	IWV-1200(a)
DCV-076	D-2	Isolation to PI-2	INST. ROOT	IWV-1200(a)
DCV-078	D-3	PI-4 Isolation	INST. ROOT	IWV-1200(a)
DCV-080	D-4	PT-6 Isolation	INST. ROOT	IWV-1200(a)
DCV-083	G-2	PI-43 Isolation	INST. ROOT	IWV-1200(a)
DCV-084	G-2	PI-44 Isolation	INST. ROOT	IWV-1200(a)
DCV-086	D-4	PS-56 Isolation	INST. ROOT	IWV-1200(a)

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DCV-089	E-2	Isolation to RM-L6	INST. ROOT	IWV-1200(a)	
DCV-090	D-3	Isolation to FI-46	INST. ROOT	IWV-1200(a)	
DCV-093	B-4	DC-62-FI Isolation	INST. ROOT	IWV-1200(a)	
DCV-094	B-4	DC-62-FI Isolation	INST. ROOT	IWV-1200(a)	
DCV-098	C-4	Sample Isolation	SAMPLE ISO.	IWV-1200(a)	
DCV-099	C-1	Level Indication Drain 3B Surge Tank	DRAIN	IWV-1200(a)	
DCV-102	B-1	Isolation to PI-60 3B Surge Tank	INST. ROOT	IWV-1200(a)	
DCV-122	C-2	3B Surge Tank Drain	DRAIN	IWV-1200(a)	
DCV-124	A-6	Vent	VENT	IWV-1200(a)	
DCV-126	B-7	3B Decay Heat Exchanger Vent	VENT	IWV-1200(a)	
DCV-128	C-7	Drain	DRAIN	IWV-1200(a)	
DCV-130	C-8	3B Decay Heat Exchanger Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DCV-146	B-5	Drain	DRAIN	IWV-1200(a)	
DCV-147	B-5	Vent	VENT	IWV-1200(a)	
DCV-148	B-5	Drain	DRAIN	IWV-1200(a)	
DCV-149	B-5	Vent	VENT	IWV-1200(a)	
DCV-150	B-5	Drain	DRAIN	IWV-1200(a)	
DCV-151	C-5	Vent	VENT	IWV-1200(a)	
DCV-152	C-4	Drain	DRAIN	IWV-1200(a)	
DCV-153	E-5	Vent	VENT	IWV-1200(a)	
DCV-154	F-4	Vent	VENT	IWV-1200(a)	
DCV-155	F-4	Drain	DRAIN	IWV-1200(a)	
DCV-156	G-4	Vent	VENT	IWV-1200(a)	
DCV-157	G-4	Drain	DRAIN	IWV-1200(a)	
DCV-158	H-4	Vent	VENT	IWV-1200(a)	
DCV-159	H-3	Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DCV-162	H-2	Vent	VENT	IWV-1200(a)	
DCV-163	E-1	Vent	VENT	IWV-1200(a)	
DCV-165	G-6	Drain	DRAIN	IWV-1200(a)	
DCV-167	A-3	3B Surge Tank Vent	VENT	IWV-1200(a)	
DCV-170	B-3	Level Transmitter Isolation 3B Surge Tank	INST. ROOT	IWV-1200(a)	
DCV-173	E-2	Flush Lime RML-6	FLUSH CONN.	IWV-1200(a)	
DCV-174	E-3	Flush Lime RML-6	FLUSH CONN.	IWV-1200(a)	
DCV-180	F-2	Vent	VENT	IWV-1200(a)	
DCV-182	G-1	3B DHCCC Heat Exch. Drain	DRAIN	IWV-1200(a)	
DCV-184	C-8	3B DH Removal HE Drain	DRAIN	IWV-1200(a)	
DCV-189	B-2	WD Vent 3B Surge Tank	VENT	IWV-1200(a)	
DCV-191	B-2	WD Vent 3B Surge Tank	VENT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Decay Ht Closed Cycle Cooling	SYSTEM TAG: DC	DRAWING: N/A	SHEET OF
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DCV-194		Air Supply Line Iso. Vlv	INST. ISO.	IWV-1200(b)	
DCV-195		Air Supply Line Vent Vlv	INST. VENT	IWV-1200(b)	
DCV-196		Air Supply Line Iso. Vlv	INST. ISO.	IWV-1200(b)	
DCV-197		Air Supply Line Vent Vlv	INST. VENT	IWV-1200(b)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Diesel Fuel		SYSTEM TAG: DF		DRAWING: FD-302-281, SHEET 1 OF 1	
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DFV-002	C-2	Day Tank Drain	DRAIN	IWV-1200(a)	
DFV-018	C-7	Day Tank Drain to Stg. Tank	DRAIN	IWV-1200(a)	
DFV-019	D-6	Transfer Pump Disch. to Waste Sample	SAMP./DRAIN	IWV-1200(a)	
DFV-022	D-2	Transfer Pump Disch. to Waste Sample	SAMP./DRAIN	IWV-1200(a)	
DFV-032	B-9	Inst. Isolation to DPI-14	INST. ROOT	IWV-1200(a)	
DFV-033	A-9	Inst. Isolation to DPI-14	INST. ROOT	IWV-1200(a)	
DFV-034	A-6	Drain for Dirty Fuel Oil Tank	DRAIN	IWV-1200(a)	
DFV-040	B-3	Inst. Isolation to DPI-13	INST. ROOT	IWV-1200(a)	
DFV-041	A-3	Inst. Isolation to DPI-13	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DFV-042	A-1	Drain for Dirty Fuel Tank	DRAIN	IWV-1200(a)	
DFV-049	E-3	AC Pump Discharge Press. Gauge Iso.	INST. ROOT	IWV-1200(a)	
DFV-050	E-6	AC Pump Discharge Press. Gauge Iso.	INST. ROOT	IWV-1200(a)	
DFV-051	D-3	DC Pump Discharge Press. Gauge Iso.	INST. ROOT	IWV-1200(a)	
DFV-052	D-6	DC Pump Discharge Press. Gauge Iso.	INST. ROOT	IWV-1200(a)	
DFV-053	D-5	AC/DC Suction Press. Gauge Iso.	INST. ROOT	IWV-1200(a)	
DFV-054	D-4	AC/DC Suction Press. Gauge Iso.	INST. ROOT	IWV-1200(a)	
DFV-055	C-4	Fuel Oil System Cross Connect Line Drain	DRAIN	IWV-1200(a)	
DFV-057	C-5	Fuel Oil System Cross Connect Line Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

DFV-063	C-1	DF-5-LI Instrument Isol.	INST. ROOT	IWV-1200(a)	
DFV-064	C-8	DF-6-LI Instrument Isol.	INST. ROOT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Decay Heat Removal	SYSTEM TAG: DH	DRAWING: FD-302-641, SHEET 1 OF 3
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DHV-013	C-5	Chemical Sample Root Valve	SAMPLE	IWV-1200(a)
DHV-015	D-4	Drain	DRAIN	IWV-1200(a)
DHV-016	F-4	Vent	VENT	IWV-1200(a)
DHV-019	F-4	3A DHP Vent	VENT	IWV-1200(a)
DHV-020	G-4	3A DHP Drain	DRAIN	IWV-1200(a)
DHV-024	B-5	Chemical Sample Root Valve	SAMPLE	IWV-1200(a)
DHV-026	F-6	Vent	VENT	IWV-1200(a)
DHV-027	D-7	Drain	DRAIN	IWV-1200(a)
DHV-029	F-7	3B DH Disch. Press. Indication Root Vlv	INST. ROOT	IWV-1200(a)
DHV-030	F-6	3B DHP Vent	VENT	IWV-1200(a)
DHV-031	G-6	3B DHP Drain	DRAIN	IWV-1200(a)

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DHV-049	C-4	Drain to Miscellaneous Waste Storage Tank	DRAIN	IWV-1200(a)	
DHV-050	G-4	3A DHP Suction Test Conn.	INST. ROOT	IWV-1200(a)	
DHV-051	D-4	3A Decay Heat Pump Flow Transmitter Root Valve	INST. ROOT	IWV-1200(a)	
DHV-052	D-3	3A Decay Heat Pump Flow Transmitter Root Valve	INST. ROOT	IWV-1200(a)	
DHV-053	B-4	3B Decay Heat Pump Flow Transmitter Root Valve	INST. ROOT	IWV-1200(a)	
DHV-054	B-4	3B Decay Heat Pump Flow Transmitter Root Valve	INST. ROOT	IWV-1200(a)	
DHV-057	E-4	3A DHHE Press. Test Conn.	INST. ROOT	IWV-1200(a)	
DHV-058	E-4	3A DHP Disch. Press. Test Conn.	INST. ROOT	IWV-1200(a)	
DHV-059	F-4	3A DH Disch. Press. Indication Root Vlv	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DHV-060	E-6	3B DHHE Press. Test Conn.	INST. ROOT	IWV-1200(a)	
DHV-061	E-6	3B DHP Disch. Press. Test Conn.	INST. ROOT	IWV-1200(a)	
DHV-062	G-7	3B DHP Suction Test Conn.	INST. ROOT	IWV-1200(a)	
DHV-065	C-9	BWST Instrument Root Valve	INST. ROOT	IWV-1200(a)	
DHV-068	D-8	BWST Drain	DRAIN	IWV-1200(a)	
DHV-079	D-2	Drain	DRAIN/TEST	IWV-1200(a)	
DHV-080	B-2	Drain	DRAIN/TEST	IWV-1200(a)	
DHV-089	C-3	Vent on Line to SF Cooler	VENT	IWV-1200(a)	
DHV-090	F-8	Spent Fuel Header Drain	DRAIN	IWV-1200(a)	
DHV-094	D-2	Decay Heat to Pressurizer Spray Drain	DRAIN/TEST	IWV-1200(a)	
DHV-096	D-3	Drain	DRAIN/TEST	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DHV-097	B-3	Iso. Vlv DPT-38	INST. ROOT	IWV-1200(a)	
DHV-098	C-3	Iso. Vlv DPT-38	INST. ROOT	IWV-1200(a)	
DHV-099	F-6	3B DHP Cyclone Separator Inlet	VENT	IWV-1200(A)	
DHV-100	F-6	3B DHP Gland Water Supply	VENT	IWV-1200(a)	
DHV-101	G-6	3B DHP Cyclone Separator Outlet	VENT	IWV-1200(a)	
DHV-102	F-4	3A DHP Cyclone Separator Inlet	VENT	IWV-1200(a)	
DHV-103	F-3	3A DHP Gland Water Supply	VENT	IWV-1200(a)	
DHV-104	G-4	3A DHP Cyclone Separator Outlet	VENT	IWV-1200(a)	
DHV-112	C-1	Vent on Loop "A" to RV	VENT/TEST	IWV-1200(a)	
DHV-113	B-2	Vent on Loop "B" to RV	VENT/TEST	IWV-1200(a)	

**TABLE 2  
VALVES EXEMPT FROM TESTING**

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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<b>SYSTEM NAME: Decay Heat Removal</b>	<b>SYSTEM TAG: DH</b>	<b>DRAWING: FD-302-641, SHEET 2 OF 3</b>
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DHV-081	E-8	Drain	DRAIN	IWV-1200(a)	
DHV-082	D-8	Drain	DRAIN	IWV-1200(a)	
DHV-083	E-3	Vent	VENT	IWV-1200(a)	
DHV-084	D-3	Vent	VENT	IWV-1200(a)	
DHV-085	C-3	Drain	DRAIN/TEST	IWV-1200(a)	
DHV-086	E-4	Drain	DRAIN	IWV-1200(a)	
DHV-087	E-5	Vent	VENT	IWV-1200(a)	
DHV-088	D-5	Vent	VENT	IWV-1200(a)	
DHV-118	A-1	Level Tap Isolation	INST. ROOT	IWV-1200(a)	
DHV-119	A-1	Level Tap Isolation	INST. ROOT	IWV-1200(a)	
DHV-198	D-3	DHV-42 Guard Pipe Drain	DRAIN	IWV-1200(a)	
DHV-199	E-3	DHV-43 Guard Pipe Drain	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Diesel Generator Coolant			SYSTEM TAG: DJ		DRAWING: FD-302-283, SHEET 1 OF 1
DJV-011	F-5	Standby Coolant Pump Drain	DRAIN	IWV-1200(a)	
DJV-012	F-5	Standby Coolant Pump Drain	DRAIN	IWV-1200(a)	
DJV-021	D-6	Radiator Drain Line Iso.	DRAIN	IWV-1200(a)	
DJV-022	D-6	Radiator Drain Line Iso.	DRAIN	IWV-1200(a)	
DJV-023	D-5	Radiator Drain	DRAIN	IWV-1200(a)	
DJV-024	D-6	Radiator Drain	DRAIN	IWV-1200(a)	
DJV-025	D-6	Radiator Drain	DRAIN	IWV-1200(a)	
DJV-026	D-5	Radiator Drain	DRAIN	IWV-1200(a)	
DJV-054	D-3	Engine Water Jacket Drain	DRAIN	IWV-1200(a)	
DJV-055	D-3	Engine Water Jacket Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

DJV-057	D-9	Lube Oil Cooler Coolant Drain	DRAIN	IWV-1200(a)	
DJV-058	D-9	Lube Oil Cooler Coolant Drain	DRAIN	IWV-1200(a)	

**SYSTEM NAME:** Diesel Generator Coolant

**SYSTEM TAG:** DJ

**DRAWING:** FD-302-284, SHEET 1 OF 1

DJV-035	E-5	Coolant Line Drain	DRAIN	IWV-1200(a)	
DJV-036	D-5	Coolant Line Drain	DRAIN	IWV-1200(a)	
DJV-037	D-5	Coolant Line Drain	DRAIN	IWV-1200(a)	
DJV-040	E-4	Suction Drain for Engine Driven Pump	DRAIN	IWV-1200(a)	
DJV-041	E-4	Suction Drain for Engine Driven Pump	DRAIN	IWV-1200(a)	
DJV-056	E-5	Drain From Air Receiver Radiators	DRAIN	IWV-1200(a)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Diesel Generator Lube Oil			SYSTEM TAG: DL	DRAWING: FD-302-285, SHEET 1 OF 1	
DLV-003	C-3	Lube Oil Pressure Switch Isolation	INST. ROOT	IWV-1200(a)	
DLV-004	C-3	Lube Oil Pressure Switch Isolation	INST. ROOT	IWV-1200(a)	
DLV-007	E-4	Lube Oil Sump Drain	DRAIN	IWV-1200(a)	
DLV-008	E-4	Lube Oil Sump Drain	DRAIN	IWV-1200(a)	
DLV-009	G-6	DL-25-P1 Iso.	INST. ROOT	IWV-1200(a)	
DLV-010	G-6	DL-26-P1 Iso.	INST. ROOT	IWV-1200(a)	
DLV-011	G-5	Lube Oil Str. Low Side Drain	DRAIN	IWV-1200(a)	
DLV-012	G-5	Lube Oil Str. Low Side Drain	DRAIN	IWV-1200(a)	
DLV-019	E-7	DFFL-1, Lube Oil Filter Drain	DRAIN	IWV-1200(a)	
DLV-020	E-7	DFFL-2, Lube Oil Filter Drain	DRAIN	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
DLV-021	C-8	Lube Oil Filter Low Side Drain	DRAIN	IWV-1200(a)	
DLV-022	C-8	Lube Oil Filter Low Side Drain	DRAIN	IWV-1200(a)	
DLV-023	G-6	Lube Oil Str. High Side Drain	DRAIN	IWV-1200(a)	
DLV-024	G-6	Lube Oil Str. High Side Drain	DRAIN	IWV-1200(a)	
DLV-027	C-6	Lube Oil Filter High Side Drain	DRAIN	IWV-1200(a)	
DLV-028	C-6	Lube Oil Filter High Side Drain	DRAIN	IWV-1200(a)	
DLV-033	F-6	DL-25-PI Iso.	INST. ROOT	IWV-1200(a)	
DLV-034	F-6	DL-26-PI Iso.	INST. ROOT	IWV-1200(a)	
DLV-035	D-9	Lube Oil Cooler Drain	DRAIN	IWV-1200(a)	
DLV-036	D-9	Lube Oil Cooler Drain	DRAIN	IWV-1200(a)	
DLV-039	--	Thermostatic Control Valve	CONT. VALVE	IWV-1200(a)	
DLV-040	--	Thermostatic Control Valve	CONT. VALVE	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
SYSTEM NAME: Domestic Water			SYSTEM TAG: DO	DRAWING: FD-302-211, SHEET 1 OF 1	
DOV-185	A-6	DO-13-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-186	B-7	DO-14-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-187	B-7	DO-15-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-188	C-7	DO-16-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-189	C-7	DO-17-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-190	D-7	DO-18-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-191	D-7	DO-19-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-192	E-7	DO-20-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-193	E-7	DO-21-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-194	E-9	DO-22-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-195	E-9	DO-23-PI Isolation	INST. ROOT	IWV-1200(a)	
DOV-197	A-7	DO-2-PS Isolation	INST. ROOT	IWV-1200(a)	
DOV-205	B-6	DO Flushing Water to Aux. Bldg. Instr.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

DOV-230	D-9	DO Connection	DRAIN	IWV-1200(a)	
DOV-256	A-7	Future	CLOSED/ CAPPED	IWV-1100	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Demineralized Water

SYSTEM TAG: DW

DRAWING: FD-302-182, SHEET 2 OF 3

DWV-161

E-5

Drain/Test

DRAIN

IWV-1200(a)



**TABLE 2  
VALVES EXEMPT FROM TESTING**

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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<b>SYSTEM NAME: Emergency Feedwater</b>		<b>SYSTEM TAG: EF</b>		<b>DRAWING: FD-302-082, SHEET 1 OF 3</b>	
EFV-019	G-4	EFP-1 Suction Pressure Gauge, EF-1-PI Isolation	INST. ROOT	IWV-1200(a)	
EFV-020	F-4	EFP-1 Discharge Pressure Gage, EF-2-PI and EF-17-PS	INST. ROOT	IWV-1200(a)	
EFV-021	F-4	EFP-2 Suction Pressure Gage, EF-5-PI Isolation	INST. ROOT	IWV-1200(a)	
EFV-022	C-5	EFP-2 Discharge Pressure Gauge, EF-6-PI & EF-18-PS	INST. ROOT	IWV-1200(a)	
EFV-025	B-5	EFP-1 Discharge Header Drain	DRAIN	IWV-1200(a)	
EFV-026	B-5	EFP Discharge Header Cross-Connect Vent	VENT	IWV-1200(a)	
EFV-027	F-4	EFP-1 Discharge Vent	VENT	IWV-1200(a)	
EFV-028	B-4	EFP-2 Discharge Header Drain	DRAIN	IWV-1200(a)	
EFV-029	C-5	EFP-2 Discharge Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
EFV-031	F-4	EFP's Suction Drain	DRAIN	IWV-1200(a)	
EFV-059	B-9	EF-23-DPT Isolation	INST. ROOT	IWV-1200(a)	
EFV-060	C-9	EF-23-DPT Isolation	INST. ROOT	IWV-1200(a)	
EFV-061	C-9	Isolation Valve to Wet Lay Up and Nitrogen Blanket	VENT	IWV-1200(a)	
EFV-062	C-9	Drain Valve	DRAIN	IWV-1200(a)	
EFV-063	B-9	EF-24-DPT Isolation	INST. ROOT	IWV-1200(a)	
EFV-064	C-9	EF-24-DPT Isolation	INST. ROOT	IWV-1200(a)	
EFV-065	C-9	Drain Valve	DRAIN	IWV-1200(a)	
EFV-066	B-7	EF-25-DPT Isolation	INST. ROOT	IWV-1200(a)	
EFV-067	C-7	EF-25-DPT Isolation	INST. ROOT	IWV-1200(a)	
EFV-068	C-8	Isolation Valve to Wet Lay Up and Nitrogen Blanket	VENT	IWV-1200(a)	
EFV-069	D-7	Vent	VENT	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
EFV-070	B-8	EF-26-DPT Isolation	INST. ROOT	IWV-1200(a)	
EFV-071	C-8	EF-26-DPT Isolation	INST. ROOT	IWV-1200(a)	
EFV-072	C-8	Drain Valve	DRAIN	IWV-1200(a)	
EFV-073	D-4	EFP-2 Governor Oil Drain	DRAIN	IWV-1200(a)	
EFV-074	D-4	EFP-2 Turbine Drain	DRAIN	IWV-1200(a)	
EFV-118	G-5	EFP-1 Casing Vent	VENT	IWV-1200(a)	
EFV-119	G-5	EFP-1 Casing Vent	VENT	IWV-1200(a)	
EFV-120	G-4	EFP-1 Casing Vent	VENT	IWV-1200(a)	
EFV-121	C-5	EFP-2 Casing Vent	VENT	IWV-1200(a)	
EFV-122	D-5	EFP-2 Casing Vent	VENT	IWV-1200(a)	
EFV-123	B-4	EF-59-PI Isolation	INST. ROOT	IWV-1200(a)	
EFV-124	F-3	EF-60-PI Isolation	INST. ROOT	IWV-1200(a)	
EFV-125	C-5	Instrument Isolation to EF-6-PI & EF-18-PS	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

EFV-126	F-5	Instrument Isolation to EF-2-PI & EF-17-PS	INST. ROOT	IWV-1200(a)	
EFV-127	D-4	EFP-2 Turbine Inboard Oil Drain	DRAIN	IWV-1200(a)	

SYSTEM NAME: Emergency Feedwater

SYSTEM TAG: EF

DRAWING: FD-302-082, SHEET 2 OF 3

EFV-092	C-5	EF-98-LT Upper Isolation	INST. ROOT	IWV-1200(a)	
EFV-093	F-5	EF-98-LT Lower Isolation	INST. ROOT	IWV-1200(a)	
EFV-094	C-6	EF-99-LT Upper Isolation	INST. ROOT	IWV-1200(a)	
EFV-095	F-6	EF-99-LT Lower Isolation	INST. ROOT	IWV-1200(a)	
EFV-096	F-6	EFT-2 Drain	DRAIN	IWV-1200(a)	
EFV-101	B-5	EFT-2 Vent	VENT	IWV-1200(a)	
EFV-106	C-7	EFP Recirc. Vent	VENT	IWV-1200(a)	
EFV-108	D-7	EFP Recirc. Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
EFV-110	D-7	EFP Suction Vent	VENT	IWV-1200(a)	
EFV-112*	E-7	EFP Suction Vent	VENT	IWV-1200(a)	
EFV-113	E-7	EFT-2 Local Sample	SAMPLE	IWV-1200(a)	
EFV-114	A-6	EFT-2 Vent	VENT	IWV-1200(a)	
EFV-115	F-7	EFT-2 Sample Isolation	SAMPLE	IWV-1200(a)	
EFV-128	G-5	EF-98-LT Low Side Drain	TEST CONN	IWV-1200(a)	
EFV-129	F-5	EF-98-LT Low Side Test Connection	TEST CONN	IWV-1200(a)	
EFV-130	G-5	EF-98-LT High Side Test Connection	TEST CONN	IWV-1200(a)	
EFV-131	G-5	EF-98-LT High Side Drain	DRAIN	IWV-1200(a)	
EFV-132	G-6	EF-99-LT Low Side Drain	DRAIN	IWV-1200(a)	
EFV-133	G-6	EF-99-LT High Side Drain	DRAIN	IWV-1200(a)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Emergency Diesel Generator		SYSTEM TAG: EG		DRAWING: FD-302-282, SHEET 1 OF 1	
EGV-013	G-2	Receiver 1A Drain	DRAIN	IWV-1200(a)	
EGV-014	G-4	Receiver 1B Drain	DRAIN	IWV-1200(a)	
EGV-015	G-6	Receiver 2A Drain	DRAIN	IWV-1200(a)	
EGV-016	G-7	Receiver 2B Drain	DRAIN	IWV-1200(a)	
EGV-027	F-2	EG-1-PI Iso.	INST. ROOT	IWV-1200(a)	
EGV-028	F-4	EG-2-PI Iso.	INST. ROOT	IWV-1200(a)	
EGV-029	F-5	EG-3-PI Iso.	INST. ROOT	IWV-1200(a)	
EGV-030	F-7	EG-4-PI Iso.	INST. ROOT	IWV-1200(a)	
EGV-031	A-4	EG-5-PS Iso.	INST. ROOT	IWV-1200(a)	
EGV-032	B-4	EG-6-PS Iso.	INST. ROOT	IWV-1200(a)	
EGV-033	B-5	EG-7-PS Iso.	INST. ROOT	IWV-1200(a)	
EGV-034	B-5	EG-8-PS Iso.	INST. ROOT	IWV-1200(a)	
EGV-043	E-5	Air Start Systems Cross Connect Line Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

EGV-045	B-3	Compressor Unload Line Drain	DRAIN	IWV-1200(a)	
EGV-046	B-6	Compressor Unload Line Drain	DRAIN	IWV-1200(a)	
EGV-048	E-2	Engine Supply Line Drain	DRAIN	IWV-1200(a)	
EGV-049	E-8	Engine Supply Line Drain	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Fire Service			SYSTEM TAG: FS		DRAWING: FD-302-231, SHEET 1 OF 5
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FSV-278	E-3	Drain and Test Connection	DRAIN	IWV-1200(a)	
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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Feedwater		SYSTEM TAG: FW		DRAWING: FD-302-081, SHEET 1 OF 4	
FWV-050	G-3	FW Header Drain	DRAIN	IWV-1200(a)	
FWV-085	F-3	N2 Supply Iso. to "A" OTSG, via FW Hdr.	VENT	IWV-1200(a)	
FWV-086	F-7	N2 Supply Iso. to "B" OTSG, via FW Hdr.	VENT	IWV-1200(a)	
FWV-097	E-7	Main FW Flow FW-8B-dpt-1, dpt-2, FT-3 and FW-315-F	INST. ROOT	IWV-1200(a)	
FWV-098	E-7	Main FW Flow FW-8B-dpt-1, dpt-2, FT-3 and FW-315-F	INST. ROOT	IWV-1200(a)	
FWV-108	E-3	FW-8A-FE Tap Isolation	INST. ROOT	IWV-1200(a)	
FWV-109	E-3	FW-8A-FE Tap Isolation	INST. ROOT	IWV-1200(a)	
FWV-110	G-7	FW Header Drain	DRAIN	IWV-1200(a)	
FWV-111	F-7	FW Header RB Penetration Drain	DRAIN	IWV-1200(a)	
FWV-112	F-3	Drain, D RB Penetration	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
continued from previous page)					
FWV-113	D-3	Low Load Line Vent	VENT	IWV-1200(a)	
FWV-114	D-7	Low Load Line Vent	VENT	IWV-1200(a)	
FWV-132	F-2	Emergency FW RB Penetration Test & Drain Isolation	DRAIN/TEST	IWV-1200(a)	
FWV-134	H-2	Emergency FW Header Vent	VENT	IWV-1200(a)	
FWV-135	H-2	Emergency FW Header Drain	DRAIN	IWV-1200(a)	
FWV-136	H-6	Emergency FW Header Drain	DRAIN	IWV-1200(a)	
FWV-137	H-6	Emergency FW Header Vent	VENT	IWV-1200(a)	
FWV-138	F-6	Emergency FW RB Penetration Test & Drain Isolation	DRAIN/TEST	IWV-1200(a)	
FWV-151	C-3	Low Load Control Valve FW-12A-dPT Isolation	INST. ROOT	IWV-1200(a)	
FWV-152	D-3	Low Load Control Valve FW-12A-dPT Isolation	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
FWV-153	C-7	Low Load Reg. Vlv FW-12B-dPT Isolation	INST. ROOT	IWV-1200(a)	
FWV-154	D-7	Low Load Reg. Vlv FW-12B-dPT Isolation	INST. ROOT	IWV-1200(a)	
FWV-163	E-7	Feed Header Drain	DRAIN	IWV-1200(a)	
FWV-169	G-3	Drain Isolation for FWV-50	DRAIN	IWV-1200(a)	
FWV-170	G-7	Drain Isolation for FWV-110	DRAIN	IWV-1200(a)	
FWV-171	F-2	FWV-112 Drain Isolation	DRAIN	IWV-1200(a)	
FWV-185	D-6	FW-34B-FE Test Connection Isolation	INST. ROOT	IWV-1200(a)	
FWV-186	E-6	FW-34B-FE Test Connection Isolation	INST. ROOT	IWV-1200(a)	
FWV-187	E-2	FW-8A-FE Test Connection isolation	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

FWV-188	E-2	FW-8A-FE Test Connection Isolation	INST. ROOT	IWV-1200(a)	
FWV-193	E-3	FW Flow FW-8A-dPT Isolation	INST. ROOT	IWV-1200(a)	
FWV-194	E-3	FW Flow FW-8A-dPT Isolation	INST. ROOT	IWV-1200(a)	
FWV-195	D-2	FW-34A-FE Test Connection Isolation	INST. ROOT	IWV-1200(a)	
FWV-196	E-2	FW-34A-FE Test Connection Isolation	INST. ROOT	IWV-1200(a)	
FWV-203	F-5	FW-43 Test Connection Isolation	DRAIN/TEST	IWV-1200(a)	
FWV-204	F-6	FW-43 Test Connection Isolation	VENT	IWV-1200(a)	
FWV-205	F-1	FW-44 Test Connection Isolation	DRAIN/TEST	IWV-1200(a)	
FWV-206	F-2	FW-44 Test Connection Isolation	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

FWV-207	E-6	Isolation for FW-330-PI	INST. ROOT	IWV-1200(a)	
FWV-208	E-2	Isolation for FW-331-PI	INST. ROOT	IWV-1200(a)	
FWV-228	E-2	FWP-7 Discharge to 'B' OTSG Vent	VENT	IWV-1200(a)	
FWV-260	E-6	Isolation FW-330-PI	INST. ROOT	IWV-1200(a)	
FWV-261	E-2	Instrument Isolation for FW-331-PI	INST. ROOT	IWV-1200(a)	

SYSTEM NAME: Feedwater

SYSTEM TAG: FW

DRAWING: FD-302-081, SHEET 3 OF 4

FWV-227	B-6	FWP-7 Discharge to 'B' OTSG Vent.	VENT	IWV-1200(a)	
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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Instrument Air		SYSTEM TAG: IA		DRAWING: FD-302-271, SHEET 1 OF 3	
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IAV-360	E-2	Drain and Test Connection	DRAIN/TEST	IWV-1200(a)	
IAV-361	F-2	Drain and Test Connection	DRAIN/TEST	IWV-1200(a)	
IAV-362	E-2	Drain and Test Connection	DRAIN/TEST	IWV-1200(a)	
IAV-363	F-2	Drain and Test Connection	DRAIN/TEST	IWV-1200(a)	

SYSTEM NAME: Instrument Air		SYSTEM TAG: IA		DRAWING: N/A	SHEET OF
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IAV-535		SWV-35 Accumulator Drain	DRAIN	IWV-1200(a)	
IAV-537		SWV-37 Accumulator Drain	DRAIN	IWV-1200(a)	
IAV-538		SWV-39 Accumulator Drain	DRAIN	IWV-1200(a)	
IAV-539		SWV-41 Accumulator Drain	DRAIN	IWV-1200(a)	
IAV-540		SWV-43 Accumulator Drain	DRAIN	IWV-1200(a)	
IAV-541		SWV-45 Accumulator Drain	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Leak Rate Testing		SYSTEM TAG: LR		DRAWING: FD-302-722, SHEET 1 OF 1	
LRV-037	F-3	Pen. #121 Vent Valve to Atmos.	VENT	IWV-1200(a)	
LRV-057	G-1	Drain on line from Pen. #122	DRAIN	IWV-1200(a)	
LRV-115	G-4	Test Connection Penetration 202	DRAIN/TEST	IWV-1200(a)	
LRV-116	G-5	Test Connection Penetration 116	DRAIN/TEST	IWV-1200(a)	
LRV-117	G-5	Test Connection Penetration 116	DRAIN/TEST	IWV-1200(a)	
LRV-118	G-5	Test Connection Penetration 116	DRAIN/TEST	IWV-1200(a)	
LRV-130	G-7	Test Connection Penetration 216	DRAIN/TEST	IWV-1200(a)	
LRV-131	G-7	Test Connection Penetration 217	DRAIN/TEST	IWV-1200(a)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Leak Rate Testing		SYSTEM TAG: LR		DRAWING: FD-302-723, SHEET 1 OF 1	
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LRV-083	B-1	Pen. #306 Test Vlv (installed for Test only)	TEST CONN.	IWV-1100	
LRV-084	B-1	Pen. #305 Test Vlv (installed for Test only)	TEST CONN.	IWV-1100	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
SYSTEM NAME: Main Steam					
SYSTEM TAG: MS			DRAWING: FD-302-011, SHEET 1 OF 4		
MSV-093	B-3	MS-106&108 PT Isolation	INST. ROOT	IWV-1200(a)	
MSV-094	C-3	MS-107&109 PT Isolation	INST. ROOT	IWV-1200(a)	
MSV-095	E-3	MS-111&113 PT Isolation	INST. ROOT	IWV-1200(a)	
MSV-096	F-3	MS-110&112 PT Isolation	INST. ROOT	IWV-1200(a)	
MSV-502	B-3	MS-106&108 PT Isolation	INST. ROOT	IWV-1200(a)	
MSV-503	A-3	MS Line A-2 Vent	VENT	IWV-1200(a)	
MSV-504	C-3	MS-107&109 PT Isolation	INST. ROOT	IWV-1200(a)	
MSV-505	C-3	MS Line A-1 Vent	VENT	IWV-1200(a)	
MSV-506	E-3	MS-111&113 PT Isolation	INST. ROOT	IWV-1200(z)	
MSV-507	D-3	MS Line B-1 Vent	VENT	IWV-1200(a)	
MSV-508	F-3	MS-110&112 PT Isolation	INST. ROOT	IWV-1200(a)	
MSV-509	F-3	MS Line B-2 Vent	VENT	IWV-1200(a)	
MSV-527	F-5	MSV-414 Packing Leak Off	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Main Steam		SYSTEM TAG: MS		DRAWING: FD-302-011, SHEET 2 OF 4	
MSV-018	E-3	SP-17 & 19 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-073	B-1	To PT1-6A OTSG-A	INST. ROOT	IWV-1200(a)	
MSV-074	B-3	To PT2-6A OTSG-A	INST. ROOT	IWV-1200(a)	
MSV-075	B-5	To PT1-6B OTSG-B	INST. ROOT	IWV-1200(a)	
MSV-076	B-8	To PT2-6B OTSG-B	INST. ROOT	IWV-1200(a)	
MSV-077	C-2	SP-18 & 20 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-078	D-2	SP-28 & 26 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-079	D-2	SP-18 & 20 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-080	D-3	SP-1A LT1 Isolation	INST. ROOT	IWV-1200(a)	
MSV-081	D-3	SP-17 & 19 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-082	E-3	SP-17 & 19 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-083	E-3	SP-25 & 17 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-084	D-6	SP-30&33-LT Isolation	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MSV-085	C-6	SP-22&24-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-086	D-6	SP-22&24-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-087	D-7	SP-1B-LT 1 Isolation	INST. ROOT	IWV-1200(a)	
MSV-088	D-7	SP-21&23-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-089	E-7	SP-21&23-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-090	E-7	SP-29&31-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-092	F-2	"A" OTSG Sample Isolation	SAMPLE VLV	IWV-1200(a)	
MSV-115	C-3	"A" OTSG Vent	VENT	IWV-1200(a)	
MSV-116	C-3	"A" OTSG Vent	VENT	IWV-1200(a)	
MSV-120	D-2	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-121	D-2	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-122	E-2	"A" OTSG Sample Isolation	SAMPLE VLV	IWV-1200(a)	
MSV-123	E-2	"A" OTSG Sample Isolation	SAMPLE VLV	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MSV-124	G-2	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-125	G-2	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-126	G-3	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-127	G-3	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-131	F-3	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-133	C-7	N2 to "B" OTSG	VENT	IWV-1200(a)	
MSV-135	C-7	"B" OTSG Vent	VENT	IWV-1200(a)	
MSV-138	E-5	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-139	E-5	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-140	E-6	"B" OTSG Sample Isolation	SAMPLE VLV	IWV-1200(a)	
MSV-141	E-6	"B" OTSG Sample Isolation	SAMPLE VLV	IWV-1200(a)	
MSV-142	G-6	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-143	G-6	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MSV-144	G-7	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-145	G-7	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-149	G-2	OTSG "A" Drain	DRAIN	IWV-1200(a)	
MSV-150	G-6	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-154	F-2	"A" OTSG Sample Isolation	SAMPLE VLV	IWV-1200(a)	
MSV-155	D-2	SP-28 & 26 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-156	D-2	SP-18 & 20 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-157	C-2	SP-18 & 20 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-159	D-3	SP-17 & 19 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-160	E-3	SP-25 & 17 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-161	D-3	SP-1A LT1 Isolation	INST. ROOT	IWV-1200(a)	
MSV-162	B-3	To PT2-6A OTSG-A	INST. ROOT	IWV-1200(a)	
MSV-163	B-2	To PT1-6A OTSG-A	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MSV-164	B-6	To PT1-68 OTSG-B	INST. ROOT	IWV-1200(a)	
MSV-165	B-8	To PT2-68 OTSG-B	INST. ROOT	IWV-1200(a)	
MSV-166	D-7	SP-21&23-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-167	E-7	SP-21&23-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-168	E-7	SP-29&31-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-169	D-6	SP-22&24-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-170	D-6	SP-30&33-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-171	C-6	SP-22&24-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-172	F-6	"B" OTSG Sample Isolation	SAMPLE VLV	IWV-1200(a)	
MSV-173	F-6	"B" OTSG Sample Isolation	SAMPLE VLV	IWV-1200(a)	
MSV-174	E-6	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-175	D-7	SP-18-LT 1 Isolation	INST. ROOT	IWV-1200(a)	
MSV-176	G-3	"A" OTSG Drain Header Isol	DRAIN	IWV-1200(a)	
(continued on next page)					

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MSV-177	G-7	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-184	G-5	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-185	G-1	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-188	E-6	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-191	F-7	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-192	F-7	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-193	F-6	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-194	E-6	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-196	D-2	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-197	D-2	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-198	E-2	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-199	F-2	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-200	F-3	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-400	G-2	"A" OTSG Drain Line Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MSV-401	H-2	"A" OTSG Drain Line Drain	DRAIN	IWV-1200(a)	
MSV-402	H-3	"A" OTSG Drain Header Drain	DRAIN	IWV-1200(a)	
MSV-403	H-3	"A" OTSG Drain Header Vent	VENT	IWV-1200(a)	
MSV-404	H-6	"B" OTSG Drain Line Vent	VENT	IWV-1200(a)	
MSV-405	H-7	"B" OTSG Drain Header Drain	DRAIN	IWV-1200(a)	
MSV-406	H-7	"B" OTSG Drain Header Vent	VENT	IWV-1200(a)	
MSV-409	A-3	"A" OTSG Vent	DRAIN/TEST	IWV-1200(a)	
MSV-410	A-7	"B" OTSG Vent	DRAIN/TEST	IWV-1200(a)	
MSV-431	B-2	M.S. Line A-2 Vent	VENT	IWV-1200(a)	
MSV-433	B-3	M.S. Line A-1 Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MSV-435	B-6	M.S. Line B-1 Vent	VENT	IWV-1200(a)	
MSV-437	B-7	M.S. Line B-2 Vent	VENT	IWV-1200(a)	
MSV-441	B-3	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-442	C-3	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-443	G-2	"A" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-444	C-7	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-445	C-7	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-446	G-6	"B" OTSG Drain Isolation	DRAIN	IWV-1200(a)	
MSV-447	B-2	M.S. Line A-2 Vent	VENT	IWV-1200(a)	
MSV-448	B-3	M.S. Line A-1 Vent	VENT	IWV-1200(a)	
MSV-449	B-6	M.S. Line B-1 Vent	VENT	IWV-1200(a)	
MSV-450	B-7	M.S. Line B-2 Vent	VENT	IWV-1200(a)	
MSV-489	C-2	SP-28 & 26 LT Isolation	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MSV-490	C-2	SP-28 & 26 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-491	D-3	SP-25 & 17 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-492	D-3	SP-25 & 17 LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-493	C-6	SP-30&33-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-494	C-6	SP-30&33-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-495	D-7	SP-29&31-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-496	D-7	SP-29&31-LT Isolation	INST. ROOT	IWV-1200(a)	
MSV-542	H-7	Vent	VENT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Make Up & Purification		SYSTEM TAG: MU		DRAWING: FD-302-661, SHEET 1 OF 5	
MUV-113	G-2	MU & P Demins. Effluent Sample Iso. Vlv	SAMPLE	IWV-1200(a)	
MUV-120	D-5	MU & P Demin 3A Resin Fill Iso.	MAINT. ISO.	IWV-1200(a)	
MUV-121	A-2	Influent Sample Downstr. Iso.	SAMPLE	IWV-1200(a)	
MUV-125	D-2	MU & P Demin. Influent Sample Iso.	SAMPLE	IWV-1200(a)	
MUV-129	A-2	Influent Sample Upstr. Iso.	SAMPLE	IWV-1200(a)	
MUV-130	D-6	MU & P Demin 3B Resin Fill Iso.	MAINT. ISO.	IWV-1200(a)	
MUV-166	B-3	LD Clr. 3A Outlet Pressure Test Conn.	INST. ROOT	IWV-1200(a)	
MUV-168	B-3	LD Clr. 3B Outlet Pressure Test Conn.	INST. ROOT	IWV-1200(a)	
MUV-171	F-2	M. & P Demins. D/P Xmtr. High Side Iso. Vlv	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

MUV-172	F-2	MU & P Demins. D/P Xmtr. Low Side Iso. Vlv	INST. ROOT	IWV-1200(a)	
MUV-191	E-3	MU & P Demin. 3A Outlet Strainer Blowdown Vlv	DRAIN	IWV-1200(a)	
MUV-192	E-7	MU & P Demin. 3B Outlet Strainer Blowdown Vlv	DRAIN	IWV-1200(a)	
MUV-193	B-9	Prefilter Inlet Pressure Switch Iso.	INST. ROOT	IWV-1200(a)	
MUV-204	A-10	Prefilter 3A Vent	VENT	IWV-1200(a)	
MUV-205	A-9	Prefilter 3B Vent	VENT	IWV-1200(a)	
MUV-236	B-8	LD Flow D/P Transmitter High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-237	B-8	LD Flow D/P Transmitter Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-246	B-10	Prefilter 3A Drain	DRAIN	IWV-1200(a)	
MUV-247	C-10	Prefilter 3B Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-250	C-9	Prefilter D/P Xmtr. High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-251	C-10	Prefilter D/P Xmtr. Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-268	C-4	LD Inlet to Pressure Reducing Station Test & Drain	DRAIN/TEST	IWV-1200(a)	
MUV-276	B-4	LD Inlet to Pressure Reducing Station Vent	VENT	IWV-1200(a)	
MUV-311	D-8	MU & P Demin. 3B Rinse Line Vent	VENT	IWV-1200(a)	
MUV-312	F-6	MU & P Demin. 3B Rinse Line Vent	VENT	IWV-1200(a)	
MUV-313	D-7	MU & P Demin. 3B Inlet Line Vent	VENT	IWV-1200(a)	
MUV-314	F-4	MU & P 3A DW Rinse Line Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-315	D-4	MU & P Demin. 3A Inlet Vent	VENT	IWV-1200(a)	
MUV-316	D-3	MU & P Demin. 3A Rinse Line Vent	VENT	IWV-1200(a)	
MUV-317	B-10	Prefilters Outlet Vent	VENT	IWV-1200(a)	
MUV-319	B-8	Prefilters Inlet Vent	VENT	IWV-1200(a)	
MUV-320	E-2	MU & P Demins. Inlet Line Vent	VENT	IWV-1200(a)	
MUV-323	B-5	LD Inlet to Pressure Reducing Station Drn. Vlv	DRAIN	IWV-1200(a)	
MUV-324	E-1	MU & P Demins. Inlet Line Drain	DRAIN	IWV-1200(a)	
MUV-325	F-3	MU & P Demins. Outlet Line Drain Vlv	DRAIN	IWV-1200(a)	
MUV-326	F-4	MU & P Demin. 3B Series Line Drain Vlv	DRAIN	IWV-1200(a)	
(continued on next page)					



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-327	D-6	MU & P Demin. 3B Inlet Drain Vlv	DRAIN	IWV-1200(a)	
MUV-330	F-8	MU & P Demin. 3B Series Line Drain Vlv	DRAIN	IWV-1200(a)	
MUV-332	H-2	MU & P Demins. Outlet Line to MUT Drain Vlv	DRAIN	IWV-1200(a)	
MUV-353	B-7	Pressure Reducing Station Outlet Vent Vlv	VENT	IWV-1200(a)	
MUV-358	B-4	LD Clr. 3B Outlet Piping Vent	VENT	IWV-1200(a)	
MUV-359	B-1	LD Clrs. Inlet Piping Vent - Upstr. Iso.	VENT	IWV-1200(a)	
MUV-360	B-2	LD Clrs. 3A Inlet Piping Vent - Upstr. Iso.	VENT	IWV-1200(a)	
MUV-361	B-1	LD Clrs. Inlet Piping Vent - Downstr. Iso.	VENT	IWV-1200(a)	
MUV-362	B-2	LD Clrs. 3A Inlet Piping Vent - Downstr. Iso.	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-380	A-2	LD Clr. 3A Inlet Vent	VENT	IWV-1200(a)	
MUV-382	B-2	LD Clr. 3B Inlet Vent	VENT	IWV-1200(a)	
MUV-384	B-2	LD Clr. 3A Inlet Pressure Test Conn.	INST. ROOT	IWV-1200(a)	
MUV-385	B-2	LD Clr. 3B Inlet Pressure Test Conn.	INST. ROOT	IWV-1200(a)	
MUV-386	B-3	LD Clr. 3A Outlet Drain	DRAIN	IWV-1200(a)	
MUV-387	A-3	LD Clr. 3A Outlet Vent - Upstr. Iso.	VENT	IWV-1200(a)	
MUV-388	B-3	LD Clr. 3B Outlet Vent - Upstr. Iso.	VENT	IWV-1200(a)	
MUV-389	C-3	LD Clr. 3B Outlet Drain	DRAIN	IWV-1200(a)	
MUV-409	B-3	LD Clr. 3B Outlet Vent - Downstr. Iso.	VENT	IWV-1200(a)	
MUV-410	A-3	LD Clr. 3A Outlet Vent - Downstr. Iso.	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

MUV-421	C-5	LD Inlet to Pressure Reducing Station Sample Iso.	SAMPLE	IWV-1200(a)	
MUV-500	C-2	LD Clr. 1C Press. Test Conn.	INST. ROOT	IWV-1200(a)	
MUV-501	C-3	LD Clr. 1C Press. Test Conn.	INST. ROOT	IWV-1200(a)	
MUV-503	C-3	LD Clr. 1C Vent	VENT	IWV-1200(a)	
MUV-506	D-3	LD Clr. 1C Drain	DRAIN	IWV-1200(a)	
MUV-507	D-3	LD Clr. 1C Drain	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Make Up & Purification		SYSTEM TAG: MU		DRAWING: FD-302-661, SHEET 2 OF 5	
MUV-081	F-3	Seal Return Clr. 3A Outlet Drain	DRAIN	IWV-1200(a)	
MUV-082	E-3	Seal Return Clr. 3A Inlet Vent to Waste Gas	VENT	IWV-1200(a)	
MUV-083	G-3	Seal Return Clr. 3B Inlet Vent to Waste Gas	VENT	IWV-1200(a)	
MUV-084	F-3	Seal Return Clr. 3B Outlet Drain	DRAIN	IWV-1200(a)	
MUV-087	H-6	Seal Return Clr. Effluent Sample Iso.	SAMPLE	IWV-1200(a)	
MUV-089	H-6	MUT Outlet Sample Iso.	SAMPLE	IWV-1200(a)	
MUV-092	D-6	Filter 3A Drain	DRAIN	IWV-1200(a)	
MUV-093	D-6	Filter 3B Drain	DRAIN	IWV-1200(a)	
MUV-094	C-6	Filter 3B Vent	VENT	IWV-1200(a)	
MUV-095	C-5	Filter 3A Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-104	B-7	MU & P Feed Line Drain to Local Container	DRAIN	IWV-1200(a)	
MUV-115	A-4	BA Chemical Addition Line to PI-21 Iso.	INST. ROOT	IWV-1200(a)	
MUV-136	H-6	MUT Outlet Drain to Misc. Waste Tank Iso.	DRAIN	IWV-1200(a)	
MUV-138	F-6	MUT Gas Sample Iso.	SAMPLE	IWV-1200(a)	
MUV-140	D-8	*INTERNALS REMOVED*	NONE	IWV-1100	
MUV-142	E-8	*INTERNALS REMOVED*	NONE	IWV-1100	
MUV-148	G-3	Seal Ret. Clr. 3B Inlet Line Pressure Test Conn.	INST. ROOT	IWV-1200(a)	
MUV-149	H-4	Seal Ret. Clr. 3B Outlet Line Pressure Test Conn.	INST. ROOT	IWV-1200(a)	
MUV-169	E-3	Seal Ret. Clr. 3A Inlet Line Pressure Test Conn.	INST. ROOT	IWV-1200(a)	
MUV-170	F-4	Seal Ret. Clr. 3A Outlet Line Pressure Test Conn.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-180	G-6	MUT Pressure Xmtr. Iso.	INST. ROOT	IWV-1200(a)	
MUV-181	H-7	MUT Level Xmtr. High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-182	E-7	Filters D/P Xmtr. Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-183	C-7	Filters D/P Xmtr. High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-195	G-7	MUT Level Xmtr. Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-208	D-3	Seal Return Cir. 3A Outlet Vent to Waste Gas	VENT	IWV-1200(a)	
MUV-209	F-3	Seal Return Cir. 3A Inlet Drain	DRAIN	IWV-1200(a)	
MUV-210	F-3	Seal Return Cir. 3B Outlet Vent to Waste Gas	VENT	IWV-1200(a)	
MUV-211	H-3	Seal Return Cir. 3B Inlet Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-269	C-4	RCP Contr'ld Bleed-Off Line to Seal Ret Clrs Test	DRAIN/TEST	IWV-1200(a)	
MUV-277	C-5	RCP Contr'ld Bleed-Off Line to Seal Ret Clr Vent	VENT	IWV-1200(a)	
MUV-294	F-6	MUT Inlet Line Vent	VENT	IWV-1200(a)	
MUV-296	E-4	Filters Outlet Line to DH System Vent	VENT	IWV-1200(a)	
MUV-297	E-4	Filters Outlet Line to DH System Vent	VENT	IWV-1200(a)	
MUV-298	F-6	MUT Inlet Vent	VENT	IWV-1200(a)	
MUV-300	D-6	Filter 3B Outlet Line to DH System Vent	VENT	IWV-1200(a)	
MUV-301	D-5	Filter 3A Outlet Line to DH System Vent	VENT	IWV-1200(a)	
MUV-304	F-1	MUP Recirc. Line to Seal Return Clrs. Vent	VENT	IWV-1200(a)	
MUV-305	F-6	Filters Outlet Line Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-306	B-6	MU & P Demins. Inlet Line to Filters Vent	VENT	IWV-1200(a)	
MUV-308	B-10	RCBT's Outlet Line to Feed Line Vent	VENT	IWV-1200(a)	
MUV-309	C-10	RCBT's Outlet Line to Feed Line Vent	VENT	IWV-1200(a)	
MUV-331	C-10	RCBT's Outlet Line to Feed Line Drain	DRAIN	IWV-1200(a)	
MUV-338	E-4	Filters Outlet Line to DH System Drain	DRAIN	IWV-1200(a)	
MUV-352	F-2	Seal Return Clr. 3A Inlet Line Drain	DRAIN	IWV-1200(a)	
MUV-355	F-4	Seal Ret. Clr. 3A Outlet Line Drain	DRAIN	IWV-1200(a)	
MUV-394	G-1	Drn Between Upstr & Downstr MUP's Recirc Mov Iso.	DRAIN	IWV-1200(a)	
MUV-395	G-1	Vent Between Upstr & Downstr MUP's Recirc Mov Iso.	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-396	H-1	MUP's Recirc Line to Upstr Recirc Line MOV Iso. Dr	DRAIN	IWV-1200(a)	
MUV-397	B-1	RCP 3B-2 Controlled Bleed-Off Line Drain	DRAIN	IWV-1200(a)	
MUV-398	B-1	RCP 3B-1 Controlled Bleed-Off Line Drain	DRAIN	IWV-1200(a)	
MUV-399	C-1	RCP 3A-2 Controlled Bleed-Off Line Drain	DRAIN	IWV-1200(a)	
MUV-400	D-1	RCP 3A-1 Controlled Bleed-Off Line Drain	DRAIN	IWV-1200(a)	
MUV-407	C-3	RCP's Control'd Bleed-Off Downstr. Line Vent	VENT	IWV-1200(a)	
MUV-418	C-3	RCP's Control'd Bleed-Off Downstr. Line Drain	DRAIN	IWV-1200(a)	
MUV-521	E-6	MU-18-DPT Isolation	INST. ROOT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Make Up & Purification		SYSTEM TAG: MU		DRAWING: FD-302-661, SHEET 3 OF 5	
MUV-179	E-8	Makeup Pump Discharge Pressure Xmtr. Iso.	INST. ROOT	IWV-1200(a)	
MUV-206	D-8	MU Flow D/P Xmtr. Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-207	D-8	MU Flow D/P Xmtr. High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-220	D-2	RCP-3B-2 Seal Flow D/P Xmtr. Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-221	D-2	RCP-3B-2 Seal Flow D/P Xmtr. High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-222	D-2	RCP-3B-1 Seal Flow D/P Xmtr. Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-223	D-2	RCP-3B-1 Seal Flow D/P Xmtr. High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-224	E-2	RCP-3A-2 Seal Flow D/P Xmtr. Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-225	E-2	RCP-3A-2 Seal Flow D/P Xmtr. High Side Iso.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-226	F-2	RCP-3A-1 Seal Flow D/P Xmtr. Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-227	F-2	RCP-3A-1 Seal Flow D/P Xmtr. High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-232	B-5	HPI Flow D/P Xmtr. to Loop A2 Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-233	B-5	HPI Flow D/P Xmtr. to Loop A2 High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-234	B-5	HPI Flow D/P Xmtr. to Loop A1 High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-235	C-5	HPI Flow D/P Xmtr. to Loop A1 Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-254	D-7	Makeup FCV Bypass Flow Indicator Upstr. Iso.	INST. ROOT	IWV-1200(a)	
MUV-255	D-6	Makeup FCV Bypass Flow Indicator Upstr. Iso.	INST. ROOT	IWV-1200(a)	
MUV-262	E-8	RCP Seal Flow D/P Xmtr. High Side Iso.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-263	E-8	RCP Seal Flow D/P Xmtr. Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-271	B-4	HPI Line to Loop A2 Test and Drain	DRAIN/TEST	IWV-1200(a)	
MUV-272	C-4	HPI Line to Loop A1 Test and Drain	DRAIN/TEST	IWV-1200(a)	
MUV-273	F-4	RCP Seal Flow Header Test & Drain	DRAIN/TEST	IWV-1200(a)	
MUV-278	A-4	HPI Line to Loop A2 Vent	VENT	IWV-1200(a)	
MUV-279	C-4	HPI Line to Loop A1 Vent	VENT	IWV-1200(a)	
MUV-295	E-8	RCP Seal FCV Supply Hdr. Vent	VENT	IWV-1200(a)	
MUV-302	C-5	MU Flow FCV Outlet Hdr. Vent	VENT	IWV-1200(a)	
MUV-303	B-6	HPI Line to Loop "A" Vent	VENT	IWV-1200(a)	
MUV-310	E-6	RCP Seal FCV Outlet Hdr. Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-322	E-4	RCP Seal FCV Outlet Header Vent	VENT	IWV-1200(a)	
MUV-328	C-5	Makeup FCV Outlet Drain	DRAIN	IWV-1200(a)	
MUV-333	B-6	HPI Line to Loop "A" Drain	DRAIN	IWV-1200(a)	
MUV-334	F-6	RCP Seal FCV Outlet Hdr. Drain	DRAIN	IWV-1200(a)	
MUV-335	C-6	Makeup FCV Outlet Line Drain	DRAIN	IWV-1200(a)	
MUV-336	F-7	RCP Seal FCV Inlet Line Drain	DRAIN	IWV-1200(a)	
MUV-390	B-3	HPI Line to RC Loop A2 Drain	DRAIN	IWV-1200(a)	
MUV-391	C-3	HPI Line to RC Loop A1 Drain	DRAIN	IWV-1200(a)	
MUV-401	D-2	RCP-3B-2 Seal Supply Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-402	E-2	RCP-3B-1 Seal Supply Drain	DRAIN	IWV-1200(a)	
MUV-403	F-2	RCP-3A-2 Seal Supply Drain	DRAIN	IWV-1200(a)	
MUV-404	F-2	RCP-3A-1 Seal Supply Drain	DRAIN	IWV-1200(a)	
MUV-405	F-3	RCP Seal Supply Line Drain	DRAIN	IWV-1200(a)	
MUV-413	A-3	HPI Line to RC Loop A2 Vent	VENT	IWV-1200(a)	
MUV-414	C-3	HPI Line to RC Loop A1 Vent	VENT	IWV-1200(a)	
MUV-419	E-3	RCP Seal Supply Line to RCP's 3B-1 and 3B-2 Drain	DRAIN	IWV-1200(a)	
MUV-420	E-2	RCP Seal Supply Line to RCP's 3B-1 and 3B-2 Vent	VENT	IWV-1200(a)	
MUV-431	D-7	Makeup FCV Inlet Line Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-461	G-6	Seal Filters DP X-mtr Hi Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-462	G-5	Seal Filters DP X-mtr Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-463	F-5	Seal Filter 3A Drain	DRAIN	IWV-1200(a)	
MUV-464	F-5	Seal Filter 3A Vent	VENT	IWV-1200(a)	
MUV-465	G-6	Seal Filter 3B Drain	DRAIN	IWV-1200(a)	
MUV-466	F-5	Seal Filter 3B Vent	VENT	IWV-1200(a)	
MUV-483	B-5	Test Drain Upstream of MUV-23	DRAIN/TEST	IWV-1200(a)	
MUV-484	C-5	Test Drain Upstream of MUV-24	DRAIN/TEST	IWV-1200(a)	
MUV-487	B-4	Test Drain Downstream of MUV-23	DRAIN/TEST	IWV-1200(a)	
MUV-488	B-4	Test Drain Downstream of MUV-24	DRAIN/TEST	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

MUV-520	G-4	MU to DH Crossconnect Vent	VENT	IWV-1200(a)	
MUV-522	F-1	RCP-1A Seal Inj. Vent	VENT	IWV-1200(a)	
MUV-523	E-1	RCP-1B Seal Injection Vent	VENT	IWV-1200(a)	
MUV-524	E-1	RCP-1C Seal Inj. Vent	VENT	IWV-1200(a)	
MUV-525	D-1	RCP-1D Seal Inj. Vent Valve	VENT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Make Up & Purification		SYSTEM TAG: MU		DRAWING: FD-302-661, SHEET 4 OF 5	
MUV-174	F-1	MUP 3C Suction Pressure Test Conn. Iso.	INST. ROOT	IWV-1200(a)	
MUV-175	F-4	MUP 3B Suction Pressure Test Conn. Iso.	INST. ROOT	IWV-1200(a)	
MUV-176	F-6	MUP 3A Suction Pressure Test Conn. Iso.	INST. ROOT	IWV-1200(a)	
MUV-177	F-7	MUP 3A Disch. Pressure Indicator Iso.	INST. ROOT	IWV-1200(a)	
MUV-184	F-4	MUP 3B Disch. Pressure Indicator Iso.	INST. ROOT	IWV-1200(a)	
MUV-185	F-1	MUP 3C Disch. Pressure Indicator Iso.	INST. ROOT	IWV-1200(a)	
MUV-228	A-2	HPI Flow D/P Xmtr. to Loop B1 High Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-229	A-2	HPI Flow D/P Xmtr. to Loop B1 Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-230	C-2	HPI Flow D/P Xmtr. to Loop B2 High Side Iso.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-231	C-2	HPI Flow D/P Xmtr. to Loop B2 Low Side Iso.	INST. ROOT	IWV-1200(a)	
MUV-274	A-3	HPI Hdr. to Loop B1 Test and Drain	DRAIN/TEST	IWV-1200(a)	
MUV-275	C-3	HPI Hdr. to Loop B2 Test and Drain	DRAIN/TEST	IWV-1200(a)	
MUV-280	A-3	HPI Hdr. to Loop B1 Vent	VENT	IWV-1200(a)	
MUV-281	C-3	HPI Hdr. to Loop B2 Vent	VENT	IWV-1200(a)	
MUV-282	B-1	HPI Line to Loop "B" Vent	VENT	IWV-1200(a)	
MUV-283	E-1	MUP 3C Recirc. Line Vent	VENT	IWV-1200(a)	
MUV-284	E-1	MUP 3C Disch. Line Vent	VENT	IWV-1200(a)	
MUV-286	H-1	MUP 3C Suction Line From DH & BWST Vent	VENT	IWV-1200(a)	
MUV-287	H-4	MUT Outlet Line to MUP Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
MUV-288	G-7	MUP 3A Suction Line From DH & BWST Line Drain	DRAIN	IWV-1200(a)	
MUV-289	E-6	MUP 3A Disch. Line Vent	VENT	IWV-1200(a)	
MUV-290	E-4	MUP 3B Recirc. Line Vent	VENT	IWV-1200(a)	
MUV-291	E-4	MUP 3B Disch. Line Vent	VENT	IWV-1200(a)	
MUV-292	E-7	MUP 3A Recirc. Line Vent	VENT	IWV-1200(a)	
MUV-293	B-6	Filters Outlet Line to MUP 3B Vent	VENT	IWV-1200(a)	
MUV-337	D-5	MUP's 3A, 3B, & 3C Recirc. Line Drain	DRAIN	IWV-1200(a)	
MUV-339	B-6	Filters Outlet Line to MUP 3B Disch. Drain	DRAIN	IWV-1200(a)	
MUV-340	D-6	MUP 3B Disch. Hdr. Drain	DRAIN	IWV-1200(a)	
MUV-341	D-2	MUP 3C Disch. Hdr. Drain	DRAIN	IWV-1200(a)	
MUV-342	E-2	MUP 3C Recirc. Line Disch. to Seal Return Ctr. Dr.	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

MUV-343	B-2	HPI Line to Loop "B" Drain	DRAIN	IWV-1200(a)	
MUV-344	E-1	MUP 3C Disch. Line Drian	DRAIN	IWV-1200(a)	
MUV-346	F-1	MUP 3C Suction Line Drain	DRAIN	IWV-1200(a)	
MUV-347	E-4	MUP 3B Disch. Line Drian	DRAIN	IWV-1200(a)	
MUV-348	F-4	MUP 3B Suction Line Drain	DRAIN	IWV-1200(a)	
MUV-349	E-6	MUP 3A Disch. Line Drain	DRAIN	IWV-1200(a)	
MUV-350	F-7	MUP 3A Suction Line Drain	DRAIN	IWV-1200(a)	
MUV-351	D-2	MUP's 3A, 3B, & 3C Recirc. Line Vent	VENT	IWV-1200(a)	
MUV-356	B-6	Filters Outlet Line to MUP 3B Disch. Vent	VENT	IWV-1200(a)	
MUV-392	B-3	HPI Line to RC Loop B1 Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

MUV-393	C-3	HPI Line to RC Loop B2 Drain	DRAIN	IWV-1200(a)	
MUV-415	A-4	HPI Line to RC Loop B1 Vent	VENT	IWV-1200(a)	
MUV-416	C-4	HPI Line to RC Loop B2 Vent	VENT	IWV-1200(a)	
MUV-435	F-7	MUP 3A Vent Vlv	VENT	IWV-1200(a)	
MUV-436	F-7	MUP 3A Vent	VENT	IWV-1200(a)	
MUV-439	F-5	MUP 3B Vent Vlv	VENT	IWV-1200(a)	
MUV-440	F-5	MUP 3B Vent Vlv	VENT	IWV-1200(a)	
MUV-443	F-2	MUP 3C Vent Vlv	VENT	IWV-1200(a)	
MUV-444	F-2	MUP 3C Vent Vlv	VENT	IWV-1200(a)	
MUV-485	A-2	Test Drain Upstream of MUV-25	DRAIN	IWV-1200(a)	
MUV-486	B-2	Test Drain Upstream of MUV-26	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

MUV-489	B-2	Test Drain Downstream of MUV-25	DRAIN	IWV-1200(a)	
MUV-490	B-2	Test Drain Downstream of MUV-26	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Nitrogen

SYSTEM TAG: NG

DRAWING: FD-302-673, SHEET 2 OF 4

NGV-181	E-3	N2 to Hdr. Drain	DRAIN	IWV-1200(a)	
NGV-182	E-2	N2 to Hdr. Drain	DRAIN	IWV-1200(a)	
NGV-183	E-3	N2 to Hdr. Drain	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Reactor Building Airlocks		SYSTEM TAG: RA		DRAWING: FD-302-772, SHEET 1 OF 1	
RAV-001	B-5	Reactor Building Personnel Hatch Test Valve	TEST	IWV-1200(a)	
RAV-002	C-5	Reactor Building Personnel Hatch Test Valve	TEST	IWV-1200(a)	
RAV-003	F-1	Reactor Building Personnel/Equip.Hatch Test Valve	TEST	IWV-1200(a)	
RAV-004	E-5	Reactor Building Personnel/Equip.Hatch Test Valve	TEST	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Reactor Coolant	SYSTEM TAG: RC	DRAWING: FD-302-651, SHEET 1 OF 3
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RCV-001	D-3	Pzr. Drain Iso.	DRAIN	IWV-1200(a)	
RCV-002	D-3	Pzr. Drain	DRAIN	IWV-1200(a)	
RCV-005	A-1	Pzr. Vent to WD System	VENT	IWV-1200(a)	
RCV-006	A-2	Pzr. Vent and N2 Iso.	VENT	IWV-1200(a)	
RCV-016	F-2	OTSG "A" Drain Iso.	DRAIN	IWV-1200(a)	
RCV-017	F-2	OTSG "A" Drain Iso.	DRAIN	IWV-1200(a)	
RCV-020	D-2	Hot Leg "A" Vent to WD System	VENT	IWV-1200(a)	
RCV-021	D-2	Hot Leg "A" Vent Iso.	VENT	IWV-1200(a)	
RCV-022	F-3	RCP-1A Suct. Line Drain Iso.	DRAIN	IWV-1200(a)	
RCV-023	F-3	RCP-1A Suct. Line Drain	DRAIN	IWV-1200(a)	
RCV-024	F-3	RCP-1A Suct. Line Drain PX	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

RCV-025	E-3	RCP-1A Suct. PX Iso.	VENT	IWV-1200(a)	
RCV-026	E-3	RCP-1A Suct. PX	VENT	IWV-1200(a)	
RCV-027	H-4	RCP-1B Suct. Line Drain Iso.	DRAIN	IWV-1200(a)	
RCV-028	H-3	RCP-1B Suct. Line Drain	DRAIN	IWV-1200(a)	
RCV-029	H-2	A Loop Lvl Xmitter Iso.	INST. ROOT	IWV-1200(a)	
RCV-030	G-4	RCP-1B Suct. PX Iso.	VENT	IWV-1200(a)	
RCV-031	G-4	RCP-1B Suct. PX	VENT	IWV-1200(a)	
RCV-032	H-5	RV Lvl Iso.	INST. ROOT	IWV-1200(a)	
RCV-033	G-5	RV Lvl Iso.	INST. ROOT	IWV-1200(a)	
RCV-039	B-9	Hot Leg "B" N2 Fill Iso.	VENT	IWV-1200(a)	
RCV-040	B-9	Hot Leg "B" Vent Iso.	VENT	IWV-1200(a)	
RCV-043	E-9	OTSG "B" Drain	DRAIN	IWV-1200(a)	
RCV-044	D-9	OTSG "B" Drain Iso.	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
RCV-045	E-8	B Loop Lv. Xmitter Iso.	INST. ROOT	IWV-1200(a)	
RCV-046	D-8	RCP-1D Suct. Line Drain iso.	DRAIN	IWV-1200(a)	
RCV-047	F-8	RCP-1D Suct. Line Drain	DRAIN	IWV-1200(a)	
RCV-049	H-7	RCP-1C Suct. Line Drain	DRAIN	IWV-1200(a)	
RCV-050	H-8	RCP-1C Suct. Line Drain PX	DRAIN	IWV-1200(a)	
RCV-060	D-2	RC-3A-PT1 & 3 Iso.	INST. ROOT	IWV-1200(a)	
RCV-061	D-3	RC-3A-PT2 & 4 Iso.	INST. ROOT	IWV-1200(a)	
RCV-062	E-5	RC-14A-FE High Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-063	E-5	RC-14A-FE Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-064	D-5	RC-14A-FE High Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-065	D-5	RC-14A-FE Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-066	C-8	RC-14B-FE Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-067	C-8	RC-14B-FE High Side Iso.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
RCV-068	C-8	RC-14B-FE Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-069	C-8	RC-14B-FE High Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-070	B-2	RC-1-LT1 Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-071	B-3	RC-1-LT1 Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-072	B-2	RC-1-LT3 Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-073	B-3	RC-1-LT3 Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-074	B-2	RC-1-LT2 Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-075	B-3	RC-1-LT2 Low Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-076	C-2	RC-1-LT1 High Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-077	C-3	RC-1-LT1 High Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-078	C-2	RC-1-LT3 High Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-079	C-3	RC-1-LT3 High Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-080	C-2	RC-1-LT2 High Side Iso.	INST. ROOT	IWV-1200(a)	
RCV-081	C-3	RC-1-LT2 High Side Iso.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
RCV-082	C-9	RC-3B-PT2 Iso.	INST. ROOT	IWV-1200(a)	
RCV-083	C-9	RC-3B-PT1 & 3 Iso.	INST. ROOT	IWV-1200(a)	
RCV-084	C-9	RC-3B-PT1 & 3 Iso.	INST. ROOT	IWV-1200(a)	
RCV-085	E-2	RC-31-PT1 & 3 Iso.	INST. ROOT	IWV-1200(a)	
RCV-086	E-3	RC-3A-PT2 & 4 Iso.	INST. ROOT	IWV-1200(a)	
RCV-125	C-9	RC-3B-PT2 Iso.	INST. ROOT	IWV-1200(a)	
RCV-143	E-8	RCP-1D Suct. Line Drain LX	INST. ROOT	IWV-1200(a)	
RCV-178	D-2	"A" Hot Leg CNDS Pot Iso. Vlv	INST. ROOT	IWV-1200(a)	
RCV-179	B-9	"B" Hot Leg CNDS Pot Iso. Vlv	INST. ROOT	IWV-1200(a)	
RCV-180	C-3	"A" Hot Leg CNDS Pot Vent	INST. VLV.	IWV-1200(a)	
RCV-181	D-3	"A" Hot Leg CNDS Pot Vent	INST. VLV.	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

RCV-183	A-8	"B" Hot Leg CNDS Pot Vent	INST. VLV.	IWV-1200(a)	
RCV-184	A-8	"B" Hot Leg CNDS Pot Vent	INST. VLV.	IWV-1200(a)	
RCV-186	A-8	RV Head CNDS Pot Vent	INST. VLV.	IWV-1200(a)	
RCV-187	A-7	RV Head CNDS Pot Vent to W.G.	VENT	IWV-1200(a)	
RCV-210	H-4	RCS Level Transmitter Isolation	INST. ROOT	IWV-1200(a)	
RCV-225	B-6	RV Head Vent	VENT	IWV-1200(a)	

SYSTEM NAME: Reactor Coolant	SYSTEM TAG: RC	DRAWING: N/A	SHEET OF
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RCV-221	RCP Seal Cover Vent	VENT	IWV-1200(a)	
RCV-222	RCP Seal Cover Vent	VENT	IWV-1200(a)	
RCV-223	RCP Seal Cover Vent	VENT	IWV-1200(a)	
RCV-224	RCP Seal Cover Vent	VENT	IWV-1200(a)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Reactor Coolant	SYSTEM TAG: RC	DRAWING: FD-302-651, SHEET 2 OF 3
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RCV-051	F-4	RCP-1B Intergasket Leak-Off	DRAIN	IWV-1200(a)	
RCV-052	F-4	RCP-1A Intergasket Leak-Off	DRAIN	IWV-1200(a)	
RCV-054	D-2	RCP-1A 2nd Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-055	D-2	RCP-1B 2nd Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-056	D-2	RCP-1C 2nd Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-057	D-2	RCP-1D 2nd Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-058	F-4	RCP-1C Intergasket Leak-Off	DRAIN	IWV-1200(a)	
RCV-059	F-4	RCP-1D Intergasket Leak-Off	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(Continued from previous page)					
RCV-087	C-2	RCP-1A 3rd Seal Cavity PT	INST. ROOT	IWV-1200(a)	
RCV-088	C-2	RCP-1B 3rd Seal Cavity PT	INST. ROOT	IWV-1200(a)	
RCV-089	C-2	RCP-1C 3rd Seal Cavity PT	INST. ROOT	IWV-1200(a)	
RCV-090	C-2	RCP-1D 3rd Seal Cavity PT	INST. ROOT	IWV-1200(a)	
RCV-091	D-3	RCP-1A 2nd Seal Cavity PT	INST. ROOT	IWV-1200(a)	
RCV-092	D-3	RCP-1B 2nd Seal Cavity PT	INST. ROOT	IWV-1200(a)	
RCV-093	D-3	RCP-1C 2nd Seal Cavity PT	INST. ROOT	IWV-1200(a)	
RCV-094	D-3	RCP-1D 2nd Seal Cavity PT	INST. ROOT	IWV-1200(a)	
RCV-099	D-2	RCP-1A Seal Cavities Vent to WD System	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
RCV-100	D-2	RCP-1B Cavities Vent to WD System	VENT	IWV-1200(a)	
RCV-101	D-2	RCP-1C Seal Cavities Vent to WD System	VENT	IWV-1200(a)	
RCV-102	D-2	RCP-1D Seal Cavities Vent to WD System	VENT	IWV-1200(a)	
RCV-105	E-2	RCP-1A 1st Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-106	E-2	RCP-1B 1st Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-111	E-2	RCP-1C 1st Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-112	E-2	RCP-1D 1st Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-113	D-2	RCP-1A 3rd Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-114	D-2	RCP-1B 3rd Seal Cavity Vent	VENT	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
RCV-115	D-2	RCP-1C 3rd Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-116	D-2	RCP-1D 3rd Seal Cavity Vent	VENT	IWV-1200(a)	
RCV-121	C-4	RCP-1A Seal Flange Drain X-Conn. to MU System	DRAIN	IWV-1200(a)	
RCV-122	C-4	RCP-1B Seal Flange Drain X-Conn. to MU System	DRAIN	IWV-1200(a)	
RCV-123	C-4	RCP-1C Seal Flange Drain X-Conn. to MU System	DRAIN	IWV-1200(a)	
RCV-124	C-4	RCP-1D Seal Flange Drain X-Conn. to MU System	DRAIN	IWV-1200(a)	
RCV-126	D-2	RCP-1A Cavities Vent Drain Line	DRAIN	IWV-1200(a)	
RCV-127	D-2	RCP-1B Cavities Vent Drain Line	DRAIN	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
RCV-128	D-2	RCP-1C Cavities Vent Drain Line	DRAIN	IWV-1200(a)	
RCV-129	D-2	RCP-1D Cavities Vent Drain Line	DRAIN	IWV-1200(a)	
RCV-190	B-2	RC-41-LS Drain Valve	DRAIN	IWV-1200(a)	
RCV-191	B-2	RC-41-LS Isol. Valve	INST. ROOT	IWV-1200(a)	
RCV-192	B-2	RC-64-LS Drain Valve	DRAIN	IWV-1200(a)	
RCV-193	B-2	RC-64-LS Isol. Valve	INST. ROOT	IWV-1200(a)	
RCV-194	B-2	RC-87-LS Drain Valve	DRAIN	IWV-1200(a)	
RCV-195	B-2	RC-87-LS Isol. Valve	INST. ROOT	IWV-1200(a)	
RCV-196	B-2	RC-110-LS Drain Valve	DRAIN	IWV-1200(a)	
RCV-197	B-2	RC-110-LS Isol. Valve	INST. ROOT	IWV-1200(a)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Nuclear Service & Decay Heat Sea Water	SYSTEM TAG: RW	DRAWING: FD-302-611, SHEET 1 OF 1
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RWV-001	D-5	PT-23 Iso.	INST. ROOT	IWV-1200(a)
RWV-002	D-5	PT-21 Iso.	INST. ROOT	IWV-1200(a)
RWV-003	A-7	PI-39 Iso.	INST. ROOT	IWV-1200(a)
RWV-004	B-4	PI-28 Root Valve	INST. ROOT	IWV-1200(a)
RWV-009	B-3	PI-29 Root Valve	INST. ROOT	IWV-1200(a)
RWV-026	E-4	RWP-2A Disch. Line Drain	DRAIN	IWV-1200(a)
RWV-027	E-4	PI-3 Iso.	INST. ROOT	IWV-1200(a)
RWV-028	E-3	RWP-3A Disch. Line Drain	DRAIN	IWV-1200(a)
RWV-030	E-5	PI-1 Iso.	INST. ROOT	IWV-1200(a)
RWV-031	E-3	Isolation to PS-62 and PI-7	INST. ROOT	IWV-1200(a)
RWV-039	E-3	Isolation to PI-9	INST. ROOT	IWV-1200(a)
RWV-044	E-6	RWP-3B Disch. Line Drain	DRAIN	IWV-1200(a)
RWV-045	E-5	RWP-2B Disch. Line Drain	DRAIN	IWV-1200(a)

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
RWV-046	E-4	RWP-1 Disch. Line Drain	DRAIN	IWV-1200(a)	
RWV-047	E-6	PT-8 Root Valve	INST. ROOT	IWV-1200(a)	
RWV-048	E-6	PI-6 and PS-61 Root Valve	INST. ROOT	IWV-1200(a)	
RWV-049	A-3	CX-43 Root Valve	INST. ROOT	IWV-1200(a)	
RWV-050	B-2	CX-44 Root Valve	INST. ROOT	IWV-1200(a)	
RWV-054	D-5	PT-63 Iso.	INST. ROOT	IWV-1200(a)	
RWV-073	B-3	3A DHHE Seawater Vent	VENT	IWV-1200(a)	
RWV-074	B-4	3B DHHE Seawater Vent	VENT	IWV-1200(a)	
RWV-075	B-3	3A DHHE Seawater Drain	DRAIN	IWV-1200(a)	
RWV-076	B-4	3B DHHE Seawater Drain	DRAIN	IWV-1200(a)	
RWV-077	C-3	3A DHHE Seawater Drain	DRAIN	IWV-1200(a)	
RWV-078	C-4	3B DHHE Seawater Drain	DRAIN	IWV-1200(a)	
RWV-090	C-9	A Heat Exch. Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
RWV-092	C-8	B Heat Exch. Vent	VENT	IWV-1200(a)	
RWV-094	C-7	C Heat Exch. Vent	VENT	IWV-1200(a)	
RWV-096	C-6	D Heat Exch. Vent	VENT	IWV-1200(a)	
RWV-097	C-8	A Heat Exch. Drain	DRAIN	IWV-1200(a)	
RWV-099	C-7	B Heat Exch. Drain	DRAIN	IWV-1200(a)	
RWV-101	C-6	C Heat Exch. Drain	DRAIN	IWV-1200(a)	
RWV-103	C-6	D Heat Exch. Drain	DRAIN	IWV-1200(a)	
RWV-111	D-6	RW Sample Vlv	SAMPLE	IWV-1200(a)	
RWV-116	A-5	RW Vent Vlv	VENT	IWV-1200(a)	
RWV-138	F-4	Line Drain	DRAIN	IWV-1200(a)	
RWV-139	F-5	Line Drain	DRAIN	IWV-1200(a)	
RWV-140	F-6	Line Drain	DRAIN	IWV-1200(a)	
RWV-144	F-2	Line Drain	DRAIN	IWV-1200(a)	
RWV-146	C-4	Flow Instrument Isolation Vlv	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

RWV-147	C-5	Flow Instrument Isolation Vlv	INST. ROOT	IWV-1200(a)	
RWV-148	D-5	Flow Instrument Isolation Vlv	INST. ROOT	IWV-1200(a)	
RWV-151	A-2	RW Recirc Line Drain Valve	DRAIN	IWV-1200(a)	
RWV-152	A-2	RW Recirc Line Vent Valve	VENT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Station Air	SYSTEM TAG: SA	DRAWING: FD-302-271, SHEET 2 OF 3
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SAV-051	F-1	Drain	DRAIN	IWV-1200(a)	
SAV-061	F-2	Drain and Test Connection	DRAIN/TEST	IWV-1200(a)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Spent Fuel Cooling	SYSTEM TAG: SF	DRAWING: FD-302-621, SHEET 1 OF 3
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SFV-022	D-3	SFCP-A Vent	VENT	IWV-1200(a)
SFV-023	E-3	SFCP-B Vent	VENT	IWV-1200(a)
SFV-031	D-4	SFCP-A Drn.	DRAIN	IWV-1200(a)
SFV-032	F-4	SFCP-B Drn.	DRAIN	IWV-1200(a)
SFV-044	D-6	SFHE-A Outlet Vent	VENT	IWV-1200(a)
SFV-045	D-6	SFHE-A Inlet Vent	VENT	IWV-1200(a)
SFV-047	E-6	SFHE-B Inlet Vent	VENT	IWV-1200(a)
SFV-048	E-6	SFHE-B Outlet Vent	VENT	IWV-1200(a)
SFV-052	D-7	SFHE Outlet Tie Sample	SAMPLE	IWV-1200(a)
SFV-083	C-1	FTC Drn. to RB Sump RB	DRAIN	IWV-1200(a)
SFV-098	E-4	SFCP-B Disch. PI	INST. ROOT	IWV-1200(a)
SFV-099	D-4	SFCP-A Disch. PI	INST. ROOT	IWV-1200(a)
SFV-102	F-3	SFCP-B Suct. PX	INST. ROOT	IWV-1200(a)

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(Continued from previous page)					
SFV-103	D-3	SFCP-A Suct. PX	INST. ROOT	IWV-1200(a)	
SFV-104	D-6	SFHE-A Inlet PX	INST. ROOT	IWV-1200(a)	
SFV-105	D-6	SFHE-A Outlet PX	INST. ROOT	IWV-1200(a)	
SFV-106	F-6	SFHE-B Inlet PX	INST. ROOT	IWV-1200(a)	
SFV-107	F-6	SFHE-B Outlet PX	INST. ROOT	IWV-1200(a)	
SFV-112	D-8	SF Coolant Flow Meter	INST. ROOT	IWV-1200(a)	
SFV-113	D-8	SF Coolant Flow Meter	INST. ROOT	IWV-1200(a)	
SFV-122	D-8	SF Coolant Return Hdr. Drn.	DRAIN	IWV-1200(a)	
SFV-129	E-5	SFCP Disch. Tie Drn.	DRAIN	IWV-1200(a)	
SFV-131	E-7	SFHE Outlet Tie Drn.	DRAIN	IWV-1200(a)	
SFV-132	F-2	Fuel Transfer Tube Drn. to WD	DRAIN	IWV-1200(a)	
SFV-138	D-7	RM-L4 Iso.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued on previous page)

SFV-139	C-3	RM-L4 Iso.	INST. ROOT	IWV-1200(a)	
SFV-180	B-2	Fuel Transfer Tube Drn. to WD	DRAIN	IWV-1200(a)	
SFV-181	C-2	Fuel Transfer Tube Drn. to WD	DRAIN	IWV-1200(a)	
SFV-187	D-1	FTC Hdr. Drn.	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Nuclear Services Closed Cycle Cooling	SYSTEM TAG: SW	DRAWING: FD-302-601, SHEET 1 OF 5
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SWV-202	A-1	A LD Cooler Vent	VENT	IWV-1200(a)	
SWV-204	B-1	A LD Cooler Drain	DRAIN	IWV-1200(a)	
SWV-215	H-8	Root Vlv to PI-40	INST. ROOT	IWV-1200(a)	
SWV-216	C-4	PI-58 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-217	C-5	PI-59 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-218	G-2	RB Fan Assembly 1A Return PI-62 Iso.	INST. ROOT	IWV-1200(a)	
SWV-219	B-2	B LD Cooler Vent	VENT	IWV-1200(a)	
SWV-220	G-4	RB Fan Assembly 1B Return PI-67 Iso.	INST. ROOT	IWV-1200(a)	
SWV-221	C-2	B LD Cooler Drain	DRAIN	IWV-1200(a)	
SWV-222	G-7	RB Fan Assembly 1C Return PI-72 Iso.	INST. ROOT	IWV-1200(a)	
SWV-224	E-9	SWP-2A Suction Pressure Test Connection	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-225	E-10	SWP-2B Suction Pressure Test Connection	INST. ROOT	IWV-1200(ai)	
SWV-226	E-9	SWP-2A Disch. Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-227	E-10	SWP-2B Disch. Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-228	D-9	PI-85 Iso.	INST. ROOT	IWV-1200(a)	
SWV-229	D-10	PI-86 Iso.	INST. ROOT	IWV-1200(a)	
SWV-231	D-9	PT-142 Iso.	INST. ROOT	IWV-1200(a)	
SWV-232	B-9	PT-142 Iso.	INST. ROOT	IWV-1200(a)	
SWV-233	C-7	PI-88 Iso.	INST. ROOT	IWV-1200(a)	
SWV-234	A-9	CRD Cooling Water Return PI-93 Iso.	INST. ROOT	IWV-1200(a)	
SWV-260	B-2	A LD Cooler Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-261	B-2	B LD Cooler Pressure Test Connection	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-262	B-3	RC Drain Tank Return Line Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-265	A-4	B LD Cooler Supply Line Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-266	A-4	A LD Cooler Supply Line Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-293	G-1	RB Fan Assembly 1A Supply FT-46 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-294	G-1	RB Fan Assembly 1A Supply FT-46 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-295	G-3	RB Fan Assembly 1A Return FT & FT 1-47 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-296	G-3	RB Fan Assembly 1A Return FT & FT 1-47 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-301	G-3	RB Fan Assembly 1B Supply FT-50 Root Vlv	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-302	G-3	RB Fan Assembly 1B Supply FT-50 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-303	G-5	RB Fan Assembly 1B Return FT and FT 1-51 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-304	G-5	RB Fan Assembly 1B Return FT & FT 1-51 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-309	G-5	RB Fan Assembly 1C Supply FT-54 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-310	G-5	RB Fan Assembly 1C Supply FT-54 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-311	G-7	RB Fan Assembly 1C Return FT & FT 1-55 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-312	G-7	RB Fan Assembly 1C Return FT & FT 1-55 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-317	C-7	FT-42 Root Valve	INST. ROOT	IWV-1200(a)	
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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-318	C-7	FT-42 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-319	C-6	FT-43 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-320	C-6	FT-43 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-321	C-4	FT-44 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-322	C-4	FT-44 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-323	C-5	FT-45 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-324	C-5	FT-45 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-325	B-10	FT-90 Iso.	INST. ROOT	IWV-1200(a)	
SWV-326	B-10	FT-90 Iso.	INST. ROOT	IWV-1200(a)	
SWV-327	B-9	CRD Cooling Water Return FI-91 Iso.	INST. ROOT	IWV-1200(a)	
SWV-328	B-9	CRD Cooling Water Return FI-91 Iso.	INST. ROOT	IWV-1200(a)	
SWV-421	B-10	CRD Cooling Water Sample	SAMPLE	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-453	H-8	Vent on LD Cooler Supply Line	VENT	IWV-1200(a)	
SWV-454	G-8	Vent on LD Cooler Return Line	VENT	IWV-1200(a)	
SWV-455	H-7	Drain on LD Cooler Supply Manifold	DRAIN	IWV-1200(a)	
SWV-456	H-4	RB Fan Assembly Supply Manifold Drain	DRAIN	IWV-1200(a)	
SWV-457	F-1	RB Fan Assembly 1A Supply Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-458	F-2	RB Fan Assembly 1A Return Drain	DRAIN/TEST	IWV-1200(a)	
SWV-459	F-2	RB Fan Assembly 1A Return Line Vent	VENT	IWV-1200(a)	
SWV-460	F-3	RB Fan Assembly 1B Supply Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-461	F-4	RB Fan Assembly 1B Return Line Vent	VENT	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-462	F-4	RB Fan Assembly 1B Return Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-463	F-5	RB Fan Assembly 1C Supply Line Vent	VENT	IWV-1200(a)	
SWV-464	F-5	RB Fan Assembly 1C Supply Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-465	F-7	RB Fan Assembly 1C Return Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-466	B-5	A LD Cooler Return Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-467	B-5	A LD Cooler Return Line Vent	VENT	IWV-1200(a)	
SWV-468	B-5	B LD Cooler Return Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-469	B-6	B LD Cooler Supply Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-470	B-7	A LD Cooler Supply Line Drain	DRAIN/TEST	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-471	C-7	CRD Supply Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-472	A-8	CRD Return Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-487	H-6	RB Fan Assembly Return Manifold Drain	DRAIN	IWV-1200(a)	
SWV-488	H-7	LD Cooler Return Manifold Drain	DRAIN	IWV-1200(a)	
SWV-489	F-3	RB Fan Assembly 1B Supply Line Vent	VENT	IWV-1200(a)	
SWV-495	C-9	3A CRD Filter Drain	DRAIN	IWV-1200(a)	
SWV-521	A-3	B LD Cooler Supply Line Vent	VENT	IWV-1200(a)	
SWV-522	A-3	RC Drain Tank Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-523	B-3	RC Drain Tank Inlet Line Vent	VENT	IWV-1200(a)	
SWV-524	B-3	RC Drain Tank Return Line Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-525	C-3	RC Drain Tank Return Line Drain	DRAIN	IWV-1200(a)	
SWV-526	C-3	B LD Cooler Return Line Vent	VENT	IWV-1200(a)	
SWV-527	C-3	RC Drain Tank Return Line Drain	DRAIN	IWV-1200(a)	
SWV-528	E-2	RB Fan Assembly 1A Motor Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-529	D-3	RB Fan Assembly 1B Inlet Line Vent	VENT	IWV-1200(a)	
SWV-530	E-2	RB Fan Assembly 1A Motor Cooler Return Line Drain	DRAIN	IWV-1200(a)	
SWV-531	D-4	RB Fan Assembly 1B Outlet Line Vent	VENT	IWV-1200(a)	
SWV-532	E-4	RB Fan Assembly 1B Motor Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-533	E-4	RB Fan Assembly 1B Motor Cooler Return Line Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-534	D-6	RB Fan Assembly 1C Inlet Line Vent	VENT	IWV-1200(a)	
SWV-536	D-6	RB Fan Assembly 1C Outlet Line Vent	VENT	IWV-1200(a)	
SWV-537	E-6	RB Fan Assembly 1C Motor Cooler Return Line Vent	VENT	IWV-1200(a)	
SWV-538	E-7	RB Fan Assembly 1C Motor Cooler Return Line Drain	DRAIN	IWV-1200(a)	
SWV-539	B-8	Supply Line Vent	VENT	IWV-1200(a)	
SWV-540	B-8	Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-541	B-7	Supply Line Vent	VENT	IWV-1200(a)	
SWV-542	A-8	Return Line Vent	VENT	IWV-1200(a)	
SWV-543	B-8	Return Line Drain	DRAIN	IWV-1200(a)	
SWV-544	A-8	Return Line Vent	VENT	IWV-1200(a)	
SWV-576	E-3	RB Fan Assembly 1A Return Line Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued on previous page)					
SWV-577	D-2	RB Fan Assembly 1A Outlet Line Vent	VENT	IWV-1200(a)	
SWV-578	A-3	RC Drain Tank Supply Line Vent	VENT	IWV-1200(a)	
SWV-580	C-9	3A CRD Filter Vent	VENT	IWV-1200(a)	
SWV-582	C-10	3B CRD Filter Vent	VENT	IWV-1200(a)	
SWV-583	C-10	3B CRD Filter Drain	DRAIN	IWV-1200(a)	
SWV-596	E-1	RB Fan Assembly 1A Motor Cooler Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-597	E-3	RB Fan Assembly 1B Motor Cooler Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-598	E-3	RB Fan Assembly 1C Motor Cooler Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-599	A-5	Hose Conn. - Rx. Bldg.	HOSE CONN.	IWV-1200(a)	
SWV-600	A-5	Hose Conn. - Rx. Bldg.	HOSE CONN.	IWV-1200(a)	
SWV-601	A-6	Hose Conn. - Rx. Bldg.	HOSE CONN.	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-632	A-7	CRD System Drain	DRAIN	IWV-1200(a)	
SWV-633	A-8	CRD System Drain	DRAIN	IWV-1200(a)	
SWV-634	F-7	Vent Ret. From AHF-1C	VENT	IWV-1200(a)	
SWV-635	B-6	Vent LD Supply	VENT	IWV-1200(a)	
SWV-636	B-7	Vent LD Supply	VENT	IWV-1200(a)	
SWV-641	B-3	RCDT Flow Indicator Iso. to FI-209	INST. ROOT	IWV-1200(a)	
SWV-642	B-3	RCDT Flow Indicator Iso. to FI-209	INST. ROOT	IWV-1200(a)	
SWV-692	C-1	C LD Cooler Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-693	C-1	C LD Cooler Drain	DRAIN	IWV-1200(a)	
SWV-694	B-1	C LD Cooler Drain	DRAIN	IWV-1200(a)	
SWV-697	A-1	C LD Cooler Inlet Vent	VENT	IWV-1200(a)	
SWV-703	H-6	Vent on Industrial Cooling Water Supply	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

SWV-704	D-1	AHF-1A Fan Coil Vent	VENT	IWV-1200(a)	
SWV-705	D-1	AHF-1A Fan Coil Vent	VENT	IWV-1200(a)	
SWV-706	D-1	AHF-1A Fan Coil Vent	VENT	IWV-1200(a)	
SWV-707	D-1	AHF-1A Fan Coil Vent	VENT	IWV-1200(a)	
SWV-708	D-1	AHF-1A Fan Coil Vent	VENT	IWV-1200(a)	
SWV-709	D-1	AHF-1A Fan Coil Vent	VENT	IWV-1200(a)	
SWV-710	D-1	AHF-1A Fan Coil Vent	VENT	IWV-1200(a)	
SWV-711	D-1	AHF-1A Fan Coil Vent	VENT	IWV-1200(a)	
SWV-712	D-4	AHF-1B Fan Coil Vent	VENT	IWV-1200(a)	
SWV-713	D-4	AHF-1B Fan Coil Vent	VENT	IWV-1200(a)	
SWV-714	D-4	AHF-1B Fan Coil Vent	VENT	IWV-1200(a)	
SWV-715	D-4	AHF-1B Fan Coil Vent	VENT	IWV-1200(a)	
SWV-716	D-4	AHF-1B Fan Coil Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

SWV-717	D-4	AHF-1B Fan Coil Vent	VENT	IWV-1200(a)	
SWV-718	D-4	AHF-1B Fan Coil Vent	VENT	IWV-1200(a)	
SWV-719	D-4	AHF-1B Fan Coil Vent	VENT	IWV-1200(a)	
SWV-720	D-6	AHF-1C Fan Coil Vent	VENT	IWV-1200(a)	
SWV-721	D-6	AHF-1C Fan Coil Vent	VENT	IWV-1200(a)	
SWV-722	D-6	AHF-1C Fan Coil Vent	VENT	IWV-1200(a)	
SWV-723	D-6	AHF-1C Fan Coil Vent	VENT	IWV-1200(a)	
SWV-724	D-6	AHF-1C Fan Coil Vent	VENT	IWV-1200(a)	
SWV-725	D-6	AHF-1C Fan Coil Vent	VENT	IWV-1200(a)	
SWV-726	D-6	AHF-1C Fan Coil Vent	VENT	IWV-1200(a)	
SWV-727	D-6	AHF-1C Fan Coil Vent	VENT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Nuclear Services Closed Cycle Cooling		SYSTEM TAG: SW		DRAWING: FD-302-601, SHEET 2 OF 5	
SWV-235	F-1	RC Pump 1C Return PI-100 Iso.	INST. ROOT	IWV-1200(a)	
SWV-236	F-3	RC Pump 1D Return PI-106 Iso.	INST. ROOT	IWV-1200(a)	
SWV-237	F-6	RC Pump 1A Return PI-112 Iso.	INST. ROOT	IWV-1200(a)	
SWV-238	E-8	RC Pump 1B Return PI-118 Iso.	INST. ROOT	IWV-1200(a)	
SWV-239	H-1	Supply Header Pressure PI-140 Iso.	INST. ROOT	IWV-1200(a)	
SWV-240	A-1	RC Pump 1C Seal Area Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-241	B-1	RC Pump 1C Lower Bearing Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-242	C-1	RC Pump 1C Air Cooler Pressure Test Connection	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-243	C-1	RC Pump 1C Upper Bearing Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-244	E-2	RC Pump 1C Supply Line Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-245	A-3	RC Pump 1D Seal Area Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-246	B-3	RC Pump 1D Lower Bearing Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-247	C-4	RC Pump 1D Air Cooler Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-248	C-4	RC Pump 1D Upper Bearing Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-249	E-4	RC Pump 1D Supply Line Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-250	A-4	RC Pump 1A Seal Area Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-251	B-6	RC Pump 1A Lower Bearing Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

SWV-252	C-6	RC Pump 1A Air Cooler Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-253	C-6	RC Pump 1A Upper Bearing Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-254	E-7	RC Pump 1A Supply Line Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-255	A-8	RC Pump 1B Seal Area Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-256	B-9	RC Pump 1B Lower Bearing Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-257	C-8	RC Pump 1B Air Cooler Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-258	C-8	RC Pump 1B Upper Bearing Cooler Press. Test Conn.	INST. ROOT	IWV-1200(a)	
SWV-259	D-10	RC Pump 1B Supply Line Pressure Test Connection	INST. ROOT	IWV-1200(a)	
SWV-329	F-2	RC Pump 1C Supply FT-95 Iso.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-330	F-2	RC Pump 1C Supply FT-95 Iso.	INST. ROOT	IWV-1200(a)	
SWV-331	F-1	RC Pump 1C Return FT-96 Iso.	INST. ROOT	IWV-1200(a)	
SWV-332	F-1	RC Pump 1C Return FT-96 Iso.	INST. ROOT	IWV-1200(a)	
SWV-333	F-5	RC Pump 1D Supply FT-101 Iso.	INST. ROOT	IWV-1200(a)	
SWV-334	F-5	RC Pump 1D Supply FT-101 Iso.	INST. ROOT	IWV-1200(a)	
SWV-335	F-4	RC Pump 1D Return FT-102 Iso.	INST. ROOT	IWV-1200(a)	
SWV-336	F-4	RC Pump 1D Return FT-102 Iso.	INST. ROOT	IWV-1200(a)	
SWV-337	F-7	RC Pump 1A Supply FT-107 Iso.	INST. ROOT	IWV-1200(a)	
SWV-338	F-7	RC Pump 1A Supply FT-107 Iso.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-339	F-6	RC Pump 1A Return FT-108 Iso.	INST. ROOT	IWV-1200(a)	
SWV-340	F-6	RC Pump 1A Return FT-108 Iso.	INST. ROOT	IWV-1200(a)	
SWV-341	E-10	RC Pump 1B Supply FT-113 Iso.	INST. ROOT	IWV-1200(a)	
SWV-342	F-10	RC Pump 1B Supply FT-113 Iso.	INST. ROOT	IWV-1200(a)	
SWV-343	E-9	RC Pump 1B Return FT-114 Iso.	INST. ROOT	IWV-1200(a)	
SWV-344	E-9	RC Pump 1B Return FT-114 Iso.	INST. ROOT	IWV-1200(a)	
SWV-428	H-1	Supply Line Vent	VENT	IWV-1200(a)	
SWV-473	E-1	RC Pump 1C Return Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-474	F-2	RC Pump 1C Supply Line Drain	DRAIN/TEST	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-475	E-3	RC Pump 1D Return Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-476	F-4	RC Pump 1D Supply Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-477	E-6	RC Pump 1A Return Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-478	F-7	RC Pump 1A Supply Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-479	D-8	RC Pump 1B Return Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-480	E-9	RC Pump 1B Supply Line Drain	DRAIN/TEST	IWV-1200(a)	
SWV-482	F-1	RC Pump 1C Return Line Vent	VENT	IWV-1200(a)	
SWV-483	F-3	RC Pump 1D Return Line Vent	VENT	IWV-1200(a)	
SWV-484	F-6	RC Pump 1A Return Line Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-485	E-8	RC Pump 1B Return Line Vent	VENT	IWV-1200(a)	
SWV-486	G-4	Supply Manifold Drain	DRAIN	IWV-1200(a)	
SWV-496	G-4	Return Manifold Drain	DRAIN	IWV-1200(a)	
SWV-545	A-1	RC Pump 1C Seal Area Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-546	A-2	RC Pump 1C Seal Area Cooler Inlet Line Vent	VENT	IWV-1200(a)	
SWV-547	C-1	RC Pump 1C Air Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-548	C-1	RC Pump 1C Upper Bearing Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-549	E-1	RC Pump 1C Return Manifold Drain	DRAIN	IWV-1200(a)	
SWV-550	E-1	RC Pump 1C Return Line Vent	VENT	IWV-1200(a)	
SWV-551	C-2	RC Pump 1C Upper Bearing Cooler Inlet Line Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

SWV-552	E-2	RC Pump 1C Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-553	E-2	RC Pump 1C Supply Line Vent	VENT	IWV-1200(a)	
SWV-554	E-3	RC Pump 1D Return Manifold Drain	DRAIN	IWV-1200(a)	
SWV-555	E-4	RC Pump 1D Return Line Vent	VENT	IWV-1200(a)	
SWV-556	A-4	RC Pump 1D Seal Area Cooler Return Line Vent	VENT	IWV-1200(a)	
SWV-557	A-5	RC Pump 1D Seal Area Cooler Inlet Line Vent	VENT	IWV-1200(a)	
SWV-558	E-5	RC Pump 1D Supply Manifold Drain	DRAIN	IWV-1200(a)	
SWV-559	E-5	RC Pump 1D Supply Line Vent	VENT	IWV-1200(a)	
SWV-560	E-6	RC Pump 1A Return Line Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-561	C-6	RC Pump 1A Upper Bearing Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-562	C-6	RC Pump 1A Air Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-563	C-7	RC Pump 1A Air Cooler Supply Line Vent	VENT	IWV-1200(a)	
SWV-564	A-6	RC Pump 1A Seal Area Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-565	A-7	RC Pump 1A Seal Area Cooler Inlet Line Vent	VENT	IWV-1200(a)	
SWV-566	E-7	RC Pump 1A Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-567	E-7	RC Pump 1A Supply Line Vent	VENT	IWV-1200(a)	
SWV-568	D-8	RC Pump 1B Return Line Drain	DRAIN	IWV-1200(a)	
SWV-569	C-9	RC Pump 1B Upper Bearing Cooler Outlet Line Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-570	C-9	RC Pump 1B Air Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-571	A-7	RC Pump 1B Seal Area Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-572	A-9	RC Pump 1B Seal Area Cooler Inlet Line Vent	VENT	IWV-1200(a)	
SWV-573	C-9	RC Pump 1B Upper Bearing Cooler Inlet Line Vent	VENT	IWV-1200(a)	
SWV-574	D-8	RC Pump 1B Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-575	D-10	RC Pump 1B Supply Line Vent	VENT	IWV-1200(a)	
SWV-602	C-3	RC Pump 1D Upper Bearing Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-603	C-3	RC Pump 1D Air Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-608	A-10	RC Pump 1B Seal Area Cooler Supply	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-609	A-10	RC Pump 1B Seal Area Cooler Supply	INST. ROOT	IWV-1200(a)	
SWV-610	C-10	RC Pump 1B Upper Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-611	C-10	RC Pump 1B Upper Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-612	A-7	RC Pump 1A Seal Area Cooler Supply	INST. ROOT	IWV-1200(a)	
SWV-613	A-8	RC Pump 1A Seal Area Cooler Supply	INST. ROOT	IWV-1200(a)	
SWV-614	C-7	RC Pump 1A Upper Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-615	C-8	RC Pump 1A Upper Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-616	A-5	RC Pump 1D Seal Area Cooler Supply	INST. ROOT	IWV-1200(a)	
SWV-617	A-5	RC Pump 1D Seal Area Cooler Supply	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

SWV-618	C-5	RC Pump 1D Upper Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-619	C-5	RC Pump 1D Upper Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-620	A-2	RC Pump 1C Seal Area Cooler Supply	INST. ROOT	IWV-1200(a)	
SWV-621	A-3	RC Pump 1C Seal Area Cooler Supply	INST. ROOT	IWV-1200(a)	
SWV-622	C-2	RC Pump 1C Upper Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-623	C-3	RC Pump 1C Upper Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-624	B-10	RC Pump 1B Lower Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-625	B-10	RC Pump 1B Lower Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-626	B-7	RC Pump 1A Lower Bearing Supply	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-627	B-8	RC Pump 1A Lower Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-628	B-5	RC Pump 1D Lower Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-629	B-5	RC Pump 1D Lower Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-630	B-2	RC Pump 1C Lower Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-631	B-3	RC Pump 1C Lower Bearing Supply	INST. ROOT	IWV-1200(a)	
SWV-649	B-1	RC Pump 1C Lower Bearing Cooler Outlet Vent	VENT	IWV-1200(a)	
SWV-650	B-2	RC Pump 1C Lower Bearing Cooler Inlet Vent	VENT	IWV-1200(a)	
SWV-651	B-4	RC Pump 1D Lower Bearing Cooler Outlet Vent	VENT	IWV-1200(a)	
SWV-652	B-5	RC Pump 1D Lower Bearing Cooler Inlet Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

SWV-653	B-6	RC Pump 1A Lower Bearing Cooler Outlet Vent	VENT	IWV-1200(a)	
SWV-654	B-7	RC Pump 1A Lower Bearing Cooler Inlet Vent	VENT	IWV-1200(a)	
SWV-655	B-8	RC Pump 1B Lower Bearing Cooler Outlet Vent	VENT	IWV-1200(a)	
SWV-656	B-10	RC Pump 1B Lower Bearing Cooler Inlet Vent	VENT	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME. Nuclear Services Closed Cycle Cooling			SYSTEM TAG: SW	DRAWING: FD-302-601, SHEET 3 OF 5	
SWV-061	D-1	Sample Iso.	SAMPLE	IWV-1200(a)	
SWV-156	A-3	SWP-1A Disch. Pressure PI 1-76	INST. ROOT	IWV-1200(a)	
SWV-179	A-4	SWP-1A Suction Pressure PI 1-75	INST. ROOT	IWV-1200(a)	
SWV-180	C-3	SWP-1B Disch. Pressure PI 1-78	INST. ROOT	IWV-1200(a)	
SWV-195	C-1	PS-151 Iso.	INST. ROOT	IWV-1200(a)	
SWV-196	C-1	Disch. Header FE-183 Iso.	INST. ROOT	IWV-1200(a)	
SWV-197	C-6	Surge Tank Drain	DRAIN	IWV-1200(a)	
SWV-198	B-7	Surge Tank Vent	VENT	IWV-1200(a)	
SWV-200	C-4	SWP-1B Suction Pressure PI 1-77	INST. ROOT	IWV-1200(a)	
SWV-205	B-5	PI-1 Root Valve	INST. ROOT	IWV-1200(a)	
SWV-206	B-4	SWP-1A Suction Pressure PI 2-75	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-207	C-4	SWP-1B Suction Pressure PI 2-77	INST. ROOT	IWV-1200(a)	
SWV-208	D-4	SWP-1C Suction Pressure PI 79	INST. ROOT	IWV-1200(a)	
SWV-209	B-3	SWP-1A Disch. Pressure PI 2-76	INST. ROOT	IWV-1200(a)	
SWV-210	C-3	SWP-1B Disch. Pressure PI 2-78	INST. ROOT	IWV-1200(a)	
SWV-211	D-3	SWP-1C Disch. Pressure PI-80	INST. ROOT	IWV-1200(a)	
SWV-212	B-2	Discharge Header Vent	VENT	IWV-1200(a)	
SWV-213	B-1	Discharge Header Vent	VENT	IWV-1200(a)	
SWV-223	C-1	Disch. Header FE-183 Iso.	INST. ROOT	IWV-1200(a)	
SWV-269	H-5	PI-122 Iso.	INST. ROOT	IWV-1200(a)	
SWV-270	B-6	PI-134 SW Surge Tank Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-271	B-6	PT-135 Pressure Instruments Iso.	INST. ROOT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-orr'	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-272	B-6	PI-136 SW Surge Tank Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-273	B-6	LT-139/228 Upper Iso. Vlv	INST. ROOT	IWV-1200(a)	
SWV-274	C-9	LT-139/228 Lower Iso. Vlv	INST. ROOT	IWV-1200(a)	
SWV-275	B-6	LI-133 Upper Iso. Vlv	INST. ROOT	IWV-1200(a)	
SWV-276	C-6	LI-133 Lower Iso. Vlv	INST. ROOT	IWV-1200(a)	
SWV-361	C-6	Surge Tank LI-133 Drain	DRAIN	IWV-1200(a)	
SWV-422	E-7	Pump Suction Line Vent	VENT	IWV-1200(a)	
SWV-423	H-5	Heat Exch. Inlet Line Vent	VENT	IWV-1200(a)	
SWV-490	C-5	SW Pumps Suction Manifold Drain	DRAIN	IWV-1200(a)	
SWV-499	B-2	RML-3 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-500	A-5	RML-3 Iso. Vlv	INST. ROOT	IWV-1200(a)	
SWV-501	A-5	RML-3 Flush Line Iso.	FLUSH CONN.	IWV-1200(a)	
SWV-502	B-5	RML-3 Flush Line Iso.	FLUSH CONN.	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-503	B-5	RML-3 Iso. Vlv	INST. ROOT	IWV-1200(a)	
SWV-504	B-5	RML-3 Root Vlv	INST. ROOT	IWV-1200(a)	
SWV-520	B-9	DW Line to Surge Tank Drain	DRAIN	IWV-1200(a)	
SWV-588	G-5	A Heat Exch. Vent	VENT	IWV-1200(a)	
SWV-589	G-6	B Heat Exch. Vent	VENT	IWV-1200(a)	
SWV-590	G-7	C Heat Exch. Vent	VENT	IWV-1200(a)	
SWV-591	G-8	D Heat Exch. Vent	VENT	IWV-1200(a)	
SWV-592	G-5	A Heat Exch. Drain	DRAIN	IWV-1200(a)	
SWV-593	G-5	B Heat Exch. Drain	DRAIN	IWV-1200(a)	
SWV-594	G-7	C Heat Exch. Drain	DRAIN	IWV-1200(a)	
SWV-595	G-8	D Heat Exch. Drain	DRAIN	IWV-1200(a)	
SWV-668	B-5	Root Valve to PS 2-134	INST. ROOT	IWV-1200(a)	
SWV-669	B-6	Upstream Root Iso.	INST. ROOT	IWV-1200(a)	
SWV-672	A-3	SWP-1A North Casing Vent	VENT	IWV-1200(a)	
SWV-673	B-3	SWP-1A South Casing Vent	VENT	IWV-1200(a)	

(continued on next page)



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-674	B-3	SWP-1B North Casing Vent	VENT	IWV-1200(a)	
SWV-675	C-3	SWP-1B South Casing Vent	VENT	IWV-1200(a)	
SWV-676	D-3	SWP-1C Casing Vent	VENT	IWV-1200(a)	
SWV-679	A-6	Casing Vent SWP-1A North to SWT-1	VENT	IWV-1200(a)	
SWV-680	A-6	Casing Vent SWP-1A South to SWT-1	VENT	IWV-1200(a)	
SWV-681	A-6	Casing Vent SWP-1B North to SWT-1	VENT	IWV-1200(a)	
SWV-682	A-6	Casing Vent SWP-1B South to SWT-1	VENT	IWV-1200(a)	
SWV-683	A-7	SWP-1C to SWT-1 Recirc Isolation	VENT	IWV-1200(a)	
SWV-684	D-3	SWP-1C to SWT-1 Recirc Isolation	VENT	IWV-1200(a)	
SWV-685	D-3	Demineralizer Connection Vlv	MAINT. ISOL.	IWV-1200(a)	
SWV-686	D-4	Demineralizer Connection Vlv	MAINT. ISOL.	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-733	C-10	Iso. for SW-218-PI	INST. ROOT	IWV-1200(a)	
SWV-736	F-5	Iso. for SW-224-PI	INST. ROOT	IWV-1200(a)	
SWV-737	F-5	Iso. for SW-221-PI	INST. ROOT	IWV-1200(a)	
SWV-738	F-7	Iso. for SW-222-PI	INST. ROOT	IWV-1200(a)	
SWV-739	F-8	Iso. for SW-223-PI	INST. ROOT	IWV-1200(a)	
SWV-768	A-9	CRD Temp. Recirc. Vent	VENT	IWV-1200(a)	
SWV-771	D-5	SWDM-1 Return Line Drain and Sample	DRAIN/TEST	IWV-1200(a)	
SWV-772	E-5	PI-225 Isolation	INST. ROOT	IWV-1200(a)	
SWV-773	E-5	PI-226 Isolation	INST. ROOT	IWV-1200(a)	
SWV-774	E-5	SWDM-1 Outlet	MAINT. ISOL.	IWV-1200(a)	
SWV-775	E-5	SWDM-1 Vent	VENT	IWV-1200(a)	
SWV-776	D-4	SWDM-1 Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-778	C-9	LT-139 Upper Iso. Vlv	INST. ROOT	IWV-1200(a)	
SWV-779	C-9	LT-228 Upper Iso. Vlv	INST. ROOT	IWV-1200(a)	

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**TABLE 2**  
**VALVES EXEMPT FROM TESTING**

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

SWV-780	C-9	LT-139 Lower Iso. Vlv	INST. ROOT	IWV-1200(a)	
SWV-781	C-9	LT-228 Lower Iso. Vlv	INST. ROOT	IWV-1200(a)	
SWV-782	B-5	RML-3 Flush Valve	FLUSH VLV.	IWV-1200(a)	
SWV-783	B-5	Vent Valve	VENT	IWV-1200(a)	
SWV-784	B-5	RML-3 Isolation	INST. ROOT	IWV-1200(a)	
SWV-785	B-5	RML-3 Isolation	INST. ROOT	IWV-1200(a)	
SWV-786	B-5	Drain Valve	DRAIN	IWV-1200(a)	

<b>SYSTEM NAME:</b> Nuclear Services Closed Cycle Cooling	<b>SYSTEM TAG:</b> SW	<b>DRAWING:</b> FD-302-601, SHEET 4 OF 5
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SWV-150	G-1	SF Cooler B Vent	VENT	IWV-1200(a)	
SWV-174	G-1	SF Cooler A Drain	DRAIN	IWV-1200(a)	
SWV-214	G-2	SF Cooler A Vent	VENT	IWV-1200(a)	
SWV-290	G-1	SF Cooler B Drain	DRAIN	IWV-1200(a)	
SWV-345	D-2	A Seal Return Cooler Vent to Waste Gas System	VENT	IWV-1200(a)	
SWV-346	D-3	B Seal Return Cooler Vent to Waste Gas System	VENT	IWV-1200(a)	

(continued on next page)

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-347	D-2	A Seal Return Cooler Drain	DRAIN	IWV-1200(a)	
SWV-348	D-3	B Seal Return Cooler Drain	DRAIN	IWV-1200(a)	
SWV-429	A-8	Supply Line Vent	VENT	IWV-1200(a)	
SWV-430	A-6	Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-431	A-7	Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-432	A-7	Supply Line Vent	VENT	IWV-1200(a)	
SWV-433	A-7	Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-434	B-7	Supply Line Vent	VENT	IWV-1200(a)	
SWV-435	C-6	RC Evap. Cond. Cooler Supply Line Vent	VENT	IWV-1200(a)	
SWV-436	D-6	RC Evap. Cond. Cooler Return Line Vent	VENT	IWV-1200(a)	
SWV-437	C-6	Evap. Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-438	C-5	Waste Evap. Cond. Cooler Supply Line Vent	VENT	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-439	E-5	Waste Evap. Cond. Cooler Outlet Line Vent	VENT	IWV-1200(a)	
SWV-440	F-5	Evap. Cooling Water Return Line Vent	VENT	IWV-1200(a)	
SWV-441	C-4	Seal Return Coolers Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-442	F-4	Seal Return Coolers Return Line Drain	DRAIN	IWV-1200(a)	
SWV-443	F-7	Return Line Vent	VENT	IWV-1200(a)	
SWV-444	F-7	Return Line Drain	DRAIN	IWV-1200(a)	
SWV-445	F-7	Return Line Vent	VENT	IWV-1200(a)	
SWV-446	F-7	Return Line Drain	DRAIN	IWV-1200(a)	
SWV-447	G-6	Return Line Drain	DRAIN	IWV-1200(a)	
SWV-448	G-6	Return Line Vent	VENT	IWV-1200(a)	
SWV-449	A-4	Supply Line Vent	VENT	IWV-1200(a)	
SWV-450	F-2	SF Coolers Supply Line Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-451	H-2	SF Cooler B Outlet Line Drain	DRAIN	IWV-1200(a)	
SWV-452	H-1	SF Cooler A Outlet Line Drain	DRAIN	IWV-1200(a)	
SWV-481	E-5	RC Evap. Condenser Outlet Line Drain	DRAIN	IWV-1200(a)	
SWV-491	B-7	Waste Gas Compressors Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-492	D-7	B Waste Gas Compressor Return Line Vent	VENT	IWV-1200(a)	
SWV-493	D-7	A Waste Gas Compressor Return Line Vent	VENT	IWV-1200(a)	
SWV-494	E-7	Waste Gas Compressors Return Line Drain	DRAIN	IWV-1200(a)	
SWV-497	A-7	Supply Line Vent	VENT	IWV-1200(a)	
SWV-498	G-7	Return Line Vent	VENT	IWV-1200(a)	
SWV-505	G-8	NS to Secondary Services Return Line Drain	DRAIN	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-506	A-7	NS to Secondary Services Supply Line Drain	DRAIN	IWV-1200(a)	
SWV-517	G-4	Control Complex Water Chiller Return Line Vent	VENT	IWV-1200(a)	
SWV-518	F-4	Control Complex Water Chiller Return Line Drain	DRAIN	IWV-1200(a)	
SWV-519	A-2	Supply Line to Control Complex Water Chillers Vent	VENT	IWV-1200(a)	
SWV-637	E-2	Spent Fuel Coolers Iso. to FI-207	INST. ROOT	IWV-1200(a)	
SWV-638	E-2	Spent Fuel Coolers Iso. to FI-207	INST. ROOT	IWV-1200(a)	
SWV-639	B-2	Control Complex Chillers Iso. to FI-208	INST. ROOT	IWV-1200(a)	
SWV-640	B-2	Control Complex Chillers Iso. to FI-208	INST. ROOT	IWV-1200(a)	
SWV-643	B-4	Seal Return Coolers Iso. to FI-211	INST. ROOT	IWV-1200(a)	
(continued on next page)					

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
(continued from previous page)					
SWV-644	B-4	Seal Return Coolers Iso. to FI-211	INST. ROOT	IWV-1200(a)	
SWV-645	C-4	Misc. Waste Evap. Iso. to FI-212	INST. ROOT	IWV-1200(a)	
SWV-646	B-4	Misc. Waste Evap. Iso. to FI-212	INST. ROOT	IWV-1200(a)	
SWV-647	C-6	RC Evap. Iso. to FI-213	INST. ROOT	IWV-1200(a)	
SWV-648	C-6	RC Evap. Iso. to FI-213	INST. ROOT	IWV-1200(a)	
SWV-678	D-10	SWHE-2 Cooling Line Drain	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Liquid Waste Disposal System		SYSTEM TAG: WD-LW		DRAWING: FD-302-681, SHEET 1 OF 6	
WDV-0809	B-4	RB Sump Discharge Hdr. Drain	DRAIN	IWV-1200(a)	

SYSTEM NAME: Liquid Waste Disposal System		SYSTEM TAG: WD-LW		DRAWING: FD-302-681, SHEET 3 OF 6	
WDV-0807	A-4	RC Drain Tank Vent Hdr. Drain	DRAIN	IWV-1200(a)	
WDV-0808	C-4	RC Drain Tank Discharge Hdr. Drain	DRAIN	IWV-1200(a)	

TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Gas Waste Disposal System			SYSTEM TAG: WD-GW	DRAWING: FD-302-691, SHEET 1 OF 3	
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WDV-0371	B-3	Primary Waste Gas Vent Hdr. Drain	DRAIN	IWV-1200(a)	
WDV-0852	C-3	CRDM Tool Header Vent	VENT	IWV-1200(a)	

SYSTEM NAME: Gas Waste Disposal System			SYSTEM TAG: WD-CW	DRAWING: FD-302-691, SHEET 2 OF 3	
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WDV-0433	G-3	Decay Tank "A" Drain Isolation	DRAIN	IWV-1200(a)	
WDV-0434	G-4	Decay Tank "B" Drain Isolation	DRAIN	IWV-1200(a)	
WDV-0435	G-5	Decay Tank "C" Drain Isolation	DRAIN	IWV-1200(a)	



TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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SYSTEM NAME: Gas Waste Disposal System			SYSTEM TAG: WD-GW		DRAWING: FD-302-692, SHEET 1 OF 1
WDV-0506	C-5	Waste Gas Decay Tank "A" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-0507	C-6	Waste Gas Decay Tank "B" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-0508	C-6	Waste Gas Decay Tank "C" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-0529	B-5	Waste Gas Decay Tank "A" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-0530	B-6	Waste Gas Decay Tank "B" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-0531	B-6	Waste Gas Decay Tank "C" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-0532	B-5	Waste Gas Decay Tank "A" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-0533	B-6	Waste Gas Decay Tank "B" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-0534	B-6	Waste Gas Decay Tank "C" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-1156	B-5	Waste Gas Decay Tank "A" Sample Isolation	SAMPLE	IWV-1200(a)	

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TABLE 2  
VALVES EXEMPT FROM TESTING

Valve Number	Dwg. Co-ord	Valve Description	Valve Function	Exemption Basis	Remarks
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(continued from previous page)

WDV-1157	B-6	Waste Gas Decay Tank "B" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-1158	B-6	Waste Gas Decay Tank "C" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-1189	C-5	Waste Gas Decay Tank "A" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-1190	C-6	Waste Gas Decay Tank "B" Sample Isolation	SAMPLE	IWV-1200(a)	
WDV-1191	C-6	Waste Gas Decay Tank "C" Sample Isolation	SAMPLE	IWV-1200(a)	

#### 4.0 RELIEF REQUESTS

For pump and valve tests that cannot be performed in accordance with 10 CFR 50.55a (c),(d),(e),(g) and (h), Florida Power Corporation has submitted relief requests. These requests, as required by 10 CFR 50.55a(a)(3), identify alternative test methods.

Below is an index of each pump and valve relief request implemented by this Program.

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## RELIEF REQUEST

V-030

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): BSV-26 & BSV-27, pump BSP-1B and BSP-1A check valves to spray nozzles.
  - b) Function: Normally closed valves that open for containment building cooling on 30 psig RB pressure signal, which starts the building spray pumps, and allowing flow to the building spray nozzles.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: C.
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3521; Quarterly valve exercise requirement. IWV-3522(b); Partial stroke valve exercise during normal plant operation and full valve exercise during cold shutdown.
- III. Basis For Requesting Relief: These check valves are in the discharge line from the Reactor Building Spray Pumps to the Reactor Building Spray Header. The stroke of these valves, either full or partial, would require initiation of the RB spray system. Since these valves are located inside the Reactor Building and alternate flowpaths for flow testing do not exist, this would entail spraying the RB with borated water. No pre-service values were recorded for these valves and identical spares are not available. Because of this, it is not possible to comply with IWV-3522(b) mechanical exercise procedures for the lift force required to move the disk.
- IV. Alternate Examination: Each refueling outage, at least one of these valves (alternate valve each outage) shall be disassembled and inspected as described below. If the inspected valve is found to be degraded to the extent it can not perform its function, then the other valve shall be disassembled and inspected as described below. The subsequent inspection may start again with a single valve.

The inspection shall assure that the valve disk has freedom of movement and is capable of a full stroke. Additionally, the general condition of the valve internals shall be checked for structural degradation including the presence of any loose parts, debris and abnormal or excessive corrosion products, wear and erosion. The disassemble and inspection procedures for these valves require verification of proper reassembly.

RELIEF REQUEST (continued)  
V-030

All maintenance history of this valve has been compiled and reviewed and it has been determined that the procedures used for inspection adequately monitor any recurring problems. The results of all inspections resulting from this alternative test method shall become part of the history file on this valve and any discrepancies noted during the preceding inspection shall be closely monitored during any current inspection.

There is no instrumentation used for this alternative test, therefore, maintenance and calibration data is not applicable.

- V. Implementation Schedule: The alternate examination program requirements will be met, beginning with refuel cycle VII.



## RELIEF REQUEST

V-080

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): CHV-95, Dedicated Chiller to EFIC Room Heat Exchanger AHHE-44.
- b) Function: CHV-95 has a safety function to close so as not to divert chilled water flow away from the EFIC coolers during normal operation.
- c) ASME Section III Code Class: 3
- d) Valve Category: C

II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3522, partial-stroke during normal operation and full-stroke testing during cold shutdown (in the closed direction only).

III. Basis For Requesting Relief: Closure verification is not practical during normal operation or cold shutdown, as the design of the system prohibits the capability of performing such a verification.

IV. Alternate Examination: Each refueling outage, this valve shall be disassembled and inspected as described below.

The inspection shall assure that the valve disk has freedom of movement and is capable of full stroke. Additionally, the general condition of the valve internals shall be checked for structural degradation including the presence of loose parts, debris and abnormal or excessive corrosion products, wear and erosion. Following re-assembly, the valve will be partial stroke tested to verify proper operation.

RELIEF REQUEST (continued)  
V-080

All maintenance history of this valve has been compiled and reviewed and it has been determined that the procedures used for inspection adequately monitor any recurring problems. The results of all inspections resulting from this alternative test method shall become part of the history file on this valve and any discrepancies noted during the preceding inspection shall be closely monitored during any current inspection.

There is no instrumentation used for this alternative test, therefore, maintenance and calibration data is not applicable.

- V. Implementation Schedule: The Alternate Examination requirements will be met, beginning during refuel cycle VIII.

RELIEF REQUEST  
V-111

DELETED

RELIEF REQUEST  
V-'12

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): DFP-1A, and 1B - Diesel Fuel Oil Transfer Pumps.
  - b) Function: Diesel fuel transfer pumps transfer fuel oil from fuel storage to the diesel day tanks.
  - c) ASME Section III Code Class: 3.
  - d) Valve Category: N/A
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWP-4600; Requirement that flow rate be measured using a rate or quantity meter installed in the pump test circuit.
- III. Basis For Requesting Relief: The diesel fuel oil transfer system lines are not equipped with flow measurement instruments. Installation of the Code required instruments would require removing an emergency diesel generator from service while the modification was being made. This could adversely impact plant operation and safety.
- IV. Alternate Examination: Flow rate within this system will be calculated using a measured change in day tank volume vs. time. The measurement devices used will meet the accuracy requirements of Table IWP-4600.
- V. Implementation Schedule: The Alternate Examination requirements are currently being met.

Revision 14 of the CR#3 P&V Manual withdrew this Relief Request for DFP-1C and DFP-1D.

RELIEF REQUEST  
V-113

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1987 Edition through Summer 1983 Addenda

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): All Class 1, 2, and 3 pumps as described in IWP-1100 and IWP-1200.
  - b) Function: To provide a means for the safe shutdown of a reactor or mitigate the consequences of an accident.
  - c) ASME Section III Code Class: 1, 2, and 3 as appropriate.
  - d) Valve Category: N/A
- II. Reference Code Requirement that has been determined to be impractical: IWP-3100; Table IWP-3100-1 requirement for measuring pump bearing temperatures. IWP-4510; Measurement of bearing vibration in displacement.
- III. Basis For Requesting Relief: Pump vibration and bearing temperature measurements are used to detect changes in the mechanical characteristics of a pump. Regular testing should detect developing problems, thus repairs can be initiated prior to a pump becoming inoperable. The ASME Section XI minimum standards require measurements of the vibration amplitude in displacement (mils, peak to peak, composite) every three months and bearing temperatures once per year.

Our proposed program is based on vibration readings in velocity (in/sec, peak unfiltered) units rather than in mils displacement. This technique is an industry accepted method which is more sensitive to small changes at high frequencies which are indicative of developing mechanical problems and hence more meaningful. Velocity measurements detect not only high amplitude low frequency vibrations that indicate a major mechanical problem, but also the equally harmful lower amplitude high frequency vibrations due bearing wear and pump operational problems that usually go undetected by a simple displacement measurements.

In addition, these readings go far beyond the capabilities of a bearing temperature monitoring program. A bearing will be seriously degraded prior to the detection of increased heat at the bearing housing. Quarterly vibration velocity readings should achieve a much higher probability of detecting developing problems than the once per year reading of bearing temperatures.



RELIEF REQUEST (continued)  
V-113

Bearing temperature tests present problems which include the following:

1. Certain systems have no recirculation test loops and a limited source of water. An enforced thirty minute run time would deplete the source.
2. The lubrication fluid for some pumps is taken from the process water, which can change temperature depending on ambient conditions. Data trending for these cases is not meaningful.

Therefore, the detection of possible bearing failure by a yearly temperature measurement is extremely unlikely. The small probability of detection of a bearing failure by temperature measurement does not justify the additional pump operating time required to obtain the measurements. In addition, it is impractical to measure bearing temperatures on many pumps.

- IV. Alternate Examination: All pump vibration monitoring requirements will be performed in accordance with ANSI/ASME OMa-1988, Part 6.

Table 3 (from OMa-1988-Part 6)					
Ranges of Test Parameters (1)					
PUMP TYPE	PUMP SPEED	TEST PARAMETER	ACCEPTABLE RANGE	ALERT RANGE	ACTION RANGE
Centrifugal and Vertical Line Shaft (2)	< 600 RPM	V(d)	$\leq 2.5V(r)$	> 2.5V(r) to 6V(r) or > 10.5 mils	> 6V(r) or > 22 mils
	$\geq 600$ RPM	V(v)	$\leq 2.5V(r)$	> 2.5V(r) to 6V(r) or > .325 in/sec	> 6V(r) or > .70 in/sec
Reciprocating		V(d) OR V(v)	$\leq 2.5V(r)$	> 2.5V(r) to 6V(r)	> 6V(r)

NOTE: (1) Vibration parameter per Table 2 (ANSI/ASME OMa-1988, Part 6)

- V. Implementation Schedule: The implementation of vibration measurement techniques has already been incorporated following receipt of the approved Safety Evaluation Report dated October 6, 1988, under TAC No. 69002.

RELIEF REQUEST  
V-115

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): All class 1, 2, and 3 Relief Valves.
  - b) Function: To provide over pressure protection for the ASME class 1, 2, and 3 systems.
  - c) ASME Section III Code Class: 1, 2, and 3 as appropriate.
  - d) Valve Category: C.
- II. Reference Code Requirement That Has Been Determined To Be Impractical: The requirements of Subsubarticle IWV-3510 for safety and relief valves, including the reference to American National Standards, Performance TEST CODE 25.3, 1976, and testing frequency requirements.
- III. Basis For Requesting Relief: The alternate code is a more recent standard and more appropriate for all safety/relief valve testing requirements in the field.
- IV. Alternate Examination: Relief is requested to utilize the reference in ASME XI, IWV-3510, 1986, ANSI/ASME OM-1, 1981 for all requirements for Inservice Testing of Nuclear Power Plant Pressure Relief Devices, with exception to the test frequency of Main Steam Safety Valves, which will remain in a five-year test frequency.
- V. Implementation Schedule: The alternate examination program requirements for use of OM-1, 1981 for test procedures has already been implemented with revisions 0 of this Relief Request. Implementation of the additional requirements will begin upon approval of this revision.

RELIEF REQUEST  
V-120

WITHDRAWN

RELIEF REQUEST  
V-128

DELETED

RELIEF REQUEST  
V-129

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): CFV-2, check valve isolation from "A" core flood tank; CFV-4 check valve isolation from "B" core flood tank.
- b) Function: These valves are in the flow path from the core flood tanks to the reactor coolant system (RCS). These valves open to allow the core flood tanks to discharge their contents to the RCS when RCS pressure drops below core flood tank pressure during a LOCA.
- c) ASME Section III Code Class: 1.
- d) Valve Category: C.

II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3522; Partial stroke valve exercise during normal plant operation and full stroke valve exercise during cold shutdown.

III. Basis For Requesting Relief:

- 1) These valves cannot be tested during plant operation because the Core Flood Tanks are maintained at a pressure of 600 psig while the RCS pressure is 2155 psig.
- 2) These valves cannot be demonstrated to fully open, using a flow test, due to the magnitude of the system design flow.
- 3) These valves cannot be scheduled for disassembly inspection during cold shutdowns because these outages last for an indeterminate amount of time. Valve disassembly constitutes a major radiological work activity and would stand a very good chance of delaying a plant restart.

IV. Alternate Examination: Each refueling outage, at least one of these valves (alternate valves each outage) shall be disassembled and inspected as described below. If the inspected valve is found to be degraded to the extent it cannot perform its function, then the other valve shall be disassembled and inspected as described below. The subsequent inspection may start again with a single valve.



## RELIEF REQUEST (continued)

V-129

The inspection shall assure that the valve disk has freedom of movement and is capable of full stroke. Additionally, the general condition of the valve internals shall be checked for structural degradation including the presence of any loose parts, debris and abnormal or excessive corrosion products, wear and erosion.

All maintenance history of this valve has been compiled and reviewed and it has been determined that the procedures used for inspection adequately monitor any recurring problems. The results of all inspections resulting from this alternative test method shall become part of the history file on this valve and any discrepancies noted during the preceding inspection shall be closely monitored during any current inspection.

There is no instrumentation used for this alternative test, therefore, maintenance and calibration data is not applicable.

Additionally, these valves are partial stroke exercised during entry into or return to power from cold shutdown by conducting a reduced flow test from the core flood tanks to the reactor vessel. This partial stroke test is also performed following re-assembly after disassembly and inspection.

V. Implementation Schedule: The Alternate Examination requirements will be met as follows:

- Partial stroke exercise is currently being met.
- Disassembly and inspection will be met beginning with refuel cycle VII.

RELIEF REQUEST  
V-131

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): DJV-1, DJV-2, DJV-17, and DJV-18 Diesel Jacket Cooling System Check Valves.
- b) Function: These valves open when the emergency diesel generators are in standby to provide a flow path for engine pre-heating. They close during emergency diesel generator operation to prevent diversion of the diesel coolant to the standby pre-heating flow circuit.
- c) ASME Section III Code Class: 3.
- d) Valve Category: C.

II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3522; Full stroke valve exercise during cold shutdown.

III. Basis For Requesting Relief:

These valves are stroked by operating the emergency diesel generators under loaded conditions, and verifying that adequate cooling is being maintained. Verification that the valves accomplish a full stroke requires that the diesel generators be run under fully loaded conditions. Due to limitations associated with the sizing of the diesel generators at Crystal River Unit 3, the diesels cannot be run under full load more frequently than once per 18 months.

IV. Alternate Examination: Each emergency diesel generator is tested monthly under partially loaded (approx. 40 to 50% ES design load) conditions and once per 18 months under nearly full loaded (approx. 80 to 90% ES design load) in accordance with the Technical Specifications. The minimum required duration of these tests is 60 minutes. Verification of adequate diesel generator cooling during these tests provides assurance that these valves are functioning properly.

It should be noted that the Diesel Generator Jacket Cooling System is a closed cycle, chemically controlled system. Corrosion of these valves is not (and has not historically been) a major factor influencing their service life.

V. Implementation Schedule: The Alternate Examination requirements are currently being met.

RELIEF REQUEST  
V-132

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): DJV-27, DJV-28, DJV-29, DJV-30, DJV-31, DJV-32, DJV-38, and DJV-39 Diesel Jacket Cooling System Check Valves.
- b) Function: These valves operate to provide a flow path for the emergency diesel generator cooling system when the diesel generators are running and close to prevent diversion of the engine pre-heating fluid when the diesels are in standby.
- c) ASME Section III Code Class: 3.
- d) Valve Category: C.

II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3522; Full stroke valve exercise during cold shutdown.

III. Basis For Requesting Relief:

These valves are stroked by operating the emergency diesel generators under loaded conditions, and verifying that adequate cooling is being maintained. Verification that the valves accomplish a full stroke requires that the diesel generators be run under fully loaded conditions. Due to limitations associated with the sizing of the diesel generators at Crystal River Unit 3, the diesels cannot be run under full load more frequently than once per 18 months.

IV. Alternate Examination: Each emergency diesel generator is tested monthly under partially loaded (approx. 40 to 50% ES design load) conditions and once per 18 months under nearly full loaded (approx. 80 to 90% ES design load) in accordance with the Technical Specifications. The minimum required duration of these tests is 60 minutes. Verification of adequate diesel generator cooling during these tests provides assurance that these valves are functioning properly.

It should be noted that the Diesel Generator Jacket Cooling System is a closed cycle, chemically controlled system. Corrosion of these valves is not (and has not historically been) a major factor influencing their service life.

RELIEF REQUEST (continued)  
V-132

- V. Implementation Schedule: The Alternate Examination requirements are currently being met.

RELIEF REQUEST  
V-150

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): DWV-162, Demineralized water supply check valve inside the Reactor Building.
  - b) Function: During normal plant operation, this valve is partially open to allow a small quantity of demineralized water to flow to the RC pumps standpipes for flushing.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: A/C.
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3521, IWV-3522; Valve closure exercise once every three months during normal plant operation, or during cold shutdown.
- III. Basis For Requesting Relief: The RC pump standpipe flushing does not provide a safety related function for mitigating accidents. The safety related function of this valve is to close. The design and function of the system prevents such position verification except during the 10CFR50 Appendix J, Type C leakage test.
- IV. Alternate Examination: This valve is subject to 10CFR50 Appendix J, type C leak rate testing during refueling outages, which will verify proper valve closure.
- V. Implementation Schedule: The alternate examination programs requirements are currently being met.



## RELIEF REQUEST

V-160

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): CFV-17, and CFV-20, core flood tank nitrogen supply line isolation check valves.
  - b) Function: Provide isolation for penetrations 123 and 124 (inside containment).
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: A/C.
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWB-3521, IWB-3522; Valve closure exercise once every three months during normal plant operation, or during cold shutdown.
- III. Basis For Requesting Relief: The core flood tanks have a static inventory of borated water with 600 psi pressure applied through a regulated nitrogen gas system. The safety related function of these valves is in the closed position. The design and function of the Core Flood system provides for an air operated isolation valve upstream of these check valves. Nitrogen charging of the Core Flood tanks requires remote operator action to open these isolation valves. The CFT storage tank supplies nitrogen at 2400 psig which is reduced to 700 psig, or 100 psig greater than the CF tanks.
- IV. Alternate Examination: These valves are subject to 10CFR50 Appendix J, Type C leak rate testing during refueling outages, which will verify proper valve closure.
- V. Implementation Schedule: The alternate examination program requirements are currently being met.

## RELIEF REQUEST

V-170

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): CFV-18, and CFV-19, core flood tank borated water supply line isolation check valves.
  - b) Function: Provide isolation for penetrations 350 and 372 (inside containment).
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: A/C.
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3521, IWV-3522; Valve closure exercise once every three months during normal plant operation, or during cold shutdown.
- III. Basis For Requesting Relief: The core flood tanks have a static inventory of borated water. The major loss of inventory results from sampling for chemical assay. The safety related function of these valves is in the closed position. The design and function of the Core Flood system provides for two manual isolation valves upstream of these check valves. Charging of the Core Flood tanks during operation requires manual operator action to open either the two manual valves in the fill line from the makeup pumps, or the two manual valves in the fill line from chemical addition pump 1-C. Both pumps have an output pressure greater than the 600 psig contained in the Core Flood tanks.
- IV. Alternate Examination: These valves are subject to 10CFR50 Appendix J, Type C leak rate testing during refueling outages, which will verify proper valve closure.
- V. Implementation Schedule: The alternate examination program requirements are currently being met.

## RELIEF REQUEST

V-190

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): MUV-36, MUV-37, MUV-42, MUV-43, MUV-160, MUV-161, MUV-163, and MUV-164 - Makeup System to RCS check valves.
- b) Function: These valves operate to supply high pressure injection flow during a LOCA.
- c) ASME Section III Code Class: 1.
- d) Valve Category: C.

II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3522; Partial stroke valve exercising during normal operation for all of these valves except MUV-43 and MUV-161 and full stroke valve exercise during cold shutdown for all of these valves.

III. Basis For Requesting Relief:

These valves are check valves which form the reactor coolant pressure boundary in the high pressure injection lines. With the exception of MUV-43 and MUV-161, which are part of the normal makeup flow path, these valves cannot be exercised during plant operation without causing thermal cycling at the high pressure injection nozzles. Valves MUV-43 and MUV-161 are partial stroke exercised during normal operation by virtue of the fact that they comprise part of the normal makeup path and must respond to makeup flow conditions. None of these valves can be full stroke exercised during cold shutdowns because of low-temperature over-pressurization (LTOP) concerns.

IV. Alternate Examination: These valves will be full flow tested each refueling outage.

V. Implementation Schedule: The Alternate Examination requirements will be met beginning with refuel cycle VII.

RELIEF REQUEST  
V-191

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 Edition  
through Summer 1983 Addenda

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): MUV-1, MUV-7, and MUV-11 - Makeup Pump (MUP-1C, MUP-1B, MUP-1A respectively) Discharge Swing Check Valves.
- b) Function: These valves provide redundant isolation of each respective makeup (HPI) pump from the other two upon cessation of flow, or normal flow from either or both of the other two pumps. Each swing check is paired with a stop check valve downstream.
- c) ASME Section III Code Class: 2
- d) Valve Category: C

II. Reference Code Requirement that has been determined to be impractical: 1) IWV-3522; full stroke valve exercising during cold shutdown (open direction); 2) IWV-3521; partial stroke during plant operation and full stroke exercise during cold shutdown (closed direction).

III. Basis For Requesting Relief: 1) These valves are located on the discharge of the makeup pumps, and are downstream of where the pump discharge tees with the pump recirculation line back to the makeup tank (MUT-1). During normal operation one of these three lines is used to provide RCS makeup and reactor coolant pump seal injection. Flow through MUV-1, MUV-7 and MUV-11, is limited by letdown capacity and seal injection flow requirements. This flow provides a partial stroke of these valves. Any remaining makeup pump flow is through the recirculation line and does not pass through MUV-1, 7, and 11.

These valves cannot be full stroke tested during cold shutdowns because of low temperature over-pressure (LTOP) concerns.

2) MUV-1, 7, and 11 are swing check valves that are in series with stop check valves MUV-2, 6, and 10, respectively. MUV-2, 6, and 10 are located downstream (between the swing check and the other pumps) and are back flow tested quarterly. There is no practical way to back flow test MUV-1, 7, and 11 without the use of outside pressure sources (hydro pumps) and the extended isolation of the makeup (and HPSI) system due to the requirement of double isolation for any hydro test over 500 PSI.

## RELIEF REQUEST (continued)

V-191

- IV. Alternate Examination: 1) For the Open direction, these valves will be partial-stroke tested quarterly and full stroke tested each refueling outage. 2) For the closed direction, at least one of these valves (alternate valve each outage) shall be disassembled and inspected during each refueling outage as described below. If the inspected valve is found to be degraded to the extent it can not perform its function, then the other valves shall be disassembled and inspected as described below. The subsequent inspection may start again with a single valve.

The inspection shall assure that the valve disk has freedom of movement and is capable of a full stroke. Additionally, the general condition of the valve internals shall be checked for structural degradation including the presence of any loose parts, debris and abnormal or excessive corrosion products, wear and erosion.

All maintenance history of this valve has been compiled and reviewed and it has been determined that the procedures used for inspection adequately monitor any recurring problems. The results of all inspections resulting from this alternative test method shall become part of the history file on this valve and any discrepancies noted during the preceding inspection shall be closely monitored during any current inspection.

There is no instrumentation used for this alternative test, therefore, maintenance and calibration data is not applicable.

- V. Implementation Schedule: The Alternate Examination requirements will be met beginning with refuel cycle VII.

This Relief Request was revised by Revision 14 of the CR#3 P&V Manual to clarify that sample disassembly and inspection is used to verify closure capability.



RELIEF REQUEST  
V-192

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 Edition through Summer 1983 Addenda

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): MUV-2, MUV-6, and MUV-10 - Makeup Pump (MUP-1C, MUP-1B, MUP-1A respectively) Discharge Stop Check Valves.
  - b) Function: These valves provide isolation of each respective makeup (HPI) pump from the other two upon cessation of flow, or normal flow from either or both of the other two pumps, and manual isolation if required.
  - c) ASME Section III Code Class: 2
  - d) Valve Category: C
- II. Reference Code Requirement that has been determined to be impractical: IWV-3522; full stroke valve exercising during cold shutdown.
- III. Basis For Requesting Relief: These valves are located on the discharge of the makeup pumps, and are downstream of where the pump discharge tees with the pump recirculation line back to the makeup tank (MUT-1). During normal operation one of these three lines is used to provide RCS makeup and reactor coolant pump seal injection. Flow through MUV-2, MUV-6 and MUV-10, is limited by letdown capacity and seal injection flow requirements. This flow provides a partial stroke of these valves. Any remaining makeup pump flow is through the recirculation line and does not pass through MUV-2, 6, and 10.

These valves can not be full stroke tested during cold shutdowns because of low temperature over-pressure (LTDP) concerns.
- IV. Alternate Examination: These valves will be full stroke tested each refueling outage.
- V. Implementation Schedule: The Alternate Examination requirements will be met beginning with refuel cycle VII.

RELIEF REQUEST  
V-200

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): MUV-60 and MUV-72 - Borated Water Storage Tank to Makeup Pumps Suction Header check valves.
- b) Function: These valves open to allow flow from the Borated Water Storage Tank (BWST) to the Makeup Pumps and close to prevent backflow to the BWST when HPI/LPI are in the "piggyback" mode of operation.
- c) ASME Section III Code Class: 2.
- d) Valve Category: C.

II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3522; Partial stroke valve exercising during normal operation and full stroke valve exercise during cold shutdown; valve closure verification during any operating condition of the plant.

III. Basis For Requesting Relief:

These valves cannot be stroked during normal plant operation because to do so would require injection of water from the BWST into the reactor vessel. This could upset reactor boron concentration. These valves cannot be full stroke exercised during cold shutdowns because of low-temperature over-pressurization (LTOP) concerns.

The design of the plant prohibits the closure verification of these valves during any mode of operation.

IV. Alternate Examination: Each refueling outage, at least one of these valves (alternate valve each outage) shall be disassembled and inspected as described below. If the inspected valve is found to be degraded to the extent it cannot perform its function, then the other valve shall be disassembled and inspected as described below. The subsequent inspection may start again with a single valve.

The inspection shall assure that the valve disk has freedom of movement and is capable of full stroke. Additionally, the general condition of the valve internals shall be checked for structural degradation including the presence of any loose parts, debris and abnormal or excessive corrosion products, wear and erosion.

RELIEF REQUEST (continued)  
V-200

All maintenance history of this valve has been compiled and reviewed and it has been determined that the procedures used for inspection adequately monitor any recurring problems. The results of all inspections resulting from this alternative test method shall become part of the history file on this valve and any discrepancies noted during the preceding inspection shall be closely monitored during any current inspection.

There is no instrumentation used for this alternative test, therefore, maintenance and calibration data is not applicable.

Additionally, during each refueling outage, these valves shall be full-stroke tested at 500 gpm.

- V. Implementation Schedule: The Alternate Examination requirements will be met, beginning with refuel cycle VII.

RELIEF REQUEST  
V-210

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): All power-operated valves with stroke times of less than two seconds.
  - b) Function: Various
  - c) ASME Section III Code Class: 2, 3.
  - d) Valve Category: A, B.
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3417(a) requirement that valves (with a stroke time of less than 10 seconds) which exhibit an increase in stroke time of 50% or more from a previous test be tested monthly.
- III. Basis For Requesting Relief: Power operated valves with normal stroke times of two seconds or less are referred to as "rapid-acting valves". For "rapid-acting valves", much of the difference in stroke times from test to test comes from inconsistencies in the operator or timing device used to gather the data. These differences are compounded by rounding the results as allowed by the Code. Thus, the results may not be representative of actual valve degradation.
- IV. Alternate Examination: "Fast acting" valves will be assigned a maximum stroke time limit of two seconds. Corrective action for valves which exceed this stroke time limit will be initiated in accordance with the requirements of IWV-3417(b).
- V. Implementation Schedule: The Alternate Examination requirements will be met as applicable.

RELIEF REQUEST  
V-220

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): MSV-55 and MSV-56 Main Steam Supply Isolation to Turbine Driven Emergency Feed Pumps.
- b) Function: These valves have a closed safety function in order to prevent backflow to a failed steam generator thereby bypassing the steam driven Emergency Feedwater Pump Turbine.
- c) ASME Section III Code Class: 2.
- d) Valve Category: C.

II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3522; Partial stroke valve exercising during normal operation and full stroke valve exercise during cold shutdown (to the closed position only).

III. Basis For Requesting Relief:

These valves are stroke tested adequately in the open direction, however, they also have a safety function to close. These valves cannot be stroked closed with flow during operation because the operating pressure of the Main Steam lines will not allow back flow testing without creating extreme hazardous conditions and affecting Main Steam conditions. These valves were evaluated for closure testing during cold shutdowns and the determination was made that adequate instrumentation, flow path and flow source does not exist with current plant configuration. Crystal River Unit #3 has not adopted the use of non-intrusive techniques for ASME Section XI check valve inspections to date. It should be noted that these valves are stop-check valves and are exercised closed on a quarterly basis using the motor operator in preparation for stroke timing in the open direction. This would provide indication of valve sticking or binding during periods between disassembly.

IV. Alternate Examination: Each refueling outage, at least one of these valves (alternate valve each outage) shall be disassembled and inspected as described below. If the inspected valve is found to be degraded to the extent it cannot perform its function, then the other valve shall be disassembled and inspected as described below. The subsequent inspection may start again with a single valve.



## RELIEF REQUEST (continued)

V-220

The inspection shall assure that the valve disk has freedom of movement and is capable of full stroke. Additionally, the general condition of the valve internals shall be checked for structural degradation including the presence of any loose parts, debris and abnormal or excessive corrosion products, wear and erosion. Subsequent to the re-assembly after inspection, the check valves will be full stroke tested to the open direction to verify proper operation.

All maintenance history of this valve has been compiled and reviewed and it has been determined that the procedures used for inspection adequately monitor any recurring problems. The results of all inspections resulting from this alternative test method shall become part of the history file on this valve and any discrepancies noted during the preceding inspection shall be closely monitored during any current inspection.

There is no instrumentation used for this alternative test, therefore, maintenance and calibration data is not applicable.

- V. Implementation Schedule: The Alternate Examination requirements will be met, beginning during refuel cycle VII.

RELIEF REQUEST  
V-221

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): MSV-186 and MSV-187 Steam Generator check valve to Turbine Driven Emergency Feedwater Pump.
- b) Function: These valves have a safety related function to close, in the event that MSV-55 or MSV-56 fails open (single active failure), in order to prevent backflow to a failed steam generator, thereby bypassing the steam driven Emergency Feedwater Pump Turbine.
- c) ASME Section III Code Class: 3.
- d) Valve Category: C.

II. Reference Code Requirement That Has Been Determined To Be Impractical: IWV-3522; Partial stroke valve exercising during normal operation and full stroke valve exercise during cold shutdown (to the closed position only).

III. Basis For Requesting Relief:

These valves are stroke tested adequately in the open direction, however, they also have a safety function to close. These valves cannot be exercised closed during operation because of the main steam line pressure and the hazards of live steam. These valves were evaluated for closure testing during cold shutdowns and the determination was made that adequate instrumentation, flow path and flow source does not exist with current plant configuration. Crystal River Unit #3 has not adopted the use of non-intrusive techniques for ASME Section XI check valve inspections to date. It should be noted that these valves are redundant check valves with MSV-55 and MSV-56 and test connections are not provided between the valve pairs.

IV. Alternate Examination: Each refueling outage, at least one of these valves (alternate valve each outage) shall be disassembled and inspected as described below. If the inspected valve is found to be degraded to the extent it cannot perform its function, then the other valve shall be disassembled and inspected as described below. The subsequent inspection may start again with a single valve.

RELIEF REQUEST (continued)  
V-221

The inspection shall assure that the valve disk has freedom of movement and is capable of full stroke. Additionally, the general condition of the valve internals shall be checked for structural degradation including the presence of any loose parts, debris and abnormal or excessive corrosion products, wear and erosion. Subsequent to the re-assembly after inspection, the check valves will be full stroke tested to the open direction to verify proper operation.

All maintenance history of this valve has been compiled and reviewed and it has been determined that the procedures used for inspection adequately monitor any recurring problems. The results of all inspections resulting from this alternative test method shall become part of the history file on this valve and any discrepancies noted during the preceding inspection shall be closely monitored during any current inspection.

There is no instrumentation used for this alternative test, therefore, maintenance and calibration data is not applicable.

- V. Implementation Schedule: The Alternate Examination requirements will be met, beginning during refuel cycle VII.

RELIEF REQUEST  
V-320

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

I. Component For Which Exemption/Relief Is Requested:

- a) Name and identification number (component tag): All valves identified as not practical to be tested during normal plant operation, but are tested during cold shutdowns.
- b) Function: Various
- c) ASME Section III Code Class: 1, 2, and 3.
- d) Valve Category: B, and C

II. Reference Code Requirement That Has Been Determined To Be Impractical:

IWV-3412(a)- valve exercising during every cold shutdown that occurs at intervals exceeding three months.

IWV-3415 - failsafe valve exercising during every cold shutdown that occurs at intervals exceeding three months.

IWV-3522 - check valve exercising during every cold shutdown that occurs at intervals exceeding three months.

III. Basis For Requesting Relief: Section XI does not provide for avoidance of startup delays which could occur while completing In Service Testing (IST) during cold shutdowns. Florida Power Corporation is submitting the issue as a Relief Request to define the approach being taken at Crystal River Unit 3 and to obtain regulatory concurrence with our position.

IV. Alternate Examination: Cold shutdown valve testing need not be completed prior to startup, provided that the program is governed as follows:

- 1) Cold shutdown valve testing will commence as soon as practical after achieving cold shutdown, but in no case later than 48 hours after achieving cold shutdown;
- 2) Valve testing will continue (on a "best effort" basis) until all testing is complete, or the plant is ready for restart;

RELIEF REQUEST (continued)  
V-320

- 3) Completion of valve testing is not a prerequisite to return to power;
- 4) Any testing not complete (ie. valve tests not finished or valves not tested) should be performed during any subsequent cold shutdown, beginning with those specific valve tests not completed in the earlier outage;

If a cold shutdown outage is planned for a sufficient duration, or if there is a cold shutdown in which testing is not begun within 48 hours, then the valve testing must be completed prior to startup.

**NOTE:** For the purpose of this relief request, the words "cold shutdown" are defined as the Crystal River Unit 3 Technical Specification reactor mode 5.

- V. Implementation Schedule: The Alternate Examination requirements will be met as applicable.



RELIEF REQUEST  
V-330

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): All valves tested when the plant is in cold shutdown.
  - b) Function: Various
  - c) ASME Section III Code Class: 1, 2, and 3.
  - d) Valve Category: A, B, and C
- II. Reference Code Requirement That Has Been Determined To Be Impractical:

IWV-3417(b)/IWV-3523; When corrective action is required as a result of tests made during cold shutdown, the condition shall be corrected before startup.
- III. Basis For Requesting Relief: Section XI does not define often used phrases such as "cold shutdown" or "startup". In the referenced paragraphs, the Code uses the word "startup" in an ambiguous manner. The "startup" sequence is more closely defined in the Crystal River Unit 3 Technical Specifications by referencing reactor operational modes which are based on measurable parameters (ie. RCS pressure and temperature). Additionally, the Technical Specifications require the operability of valves, either directly by Tag Number or indirectly through system or sub-system operability requirements. Because the Technical Specifications provide a more complete definition, Florida Power Corporation requests substitution of the Technical Specification requirements for the word "startup" in IWV-3417(b) and IWV-3523.
- IV. Alternate Examination: Operability status and mode change restrictions are to be determined in accordance with the Technical Specifications. The corrective action and subsequent test, required by Section XI, shall be completed prior to placing the reactor in the applicable operational mode. If a valve is required to be tested by Section XI, but not identified by the Technical Specifications, then corrective action and subsequent testing will not restrict mode changes but shall be completed prior to placing the affected system in service.
- V. Implementation Schedule: The Alternate Examination requirements will be met as applicable.

RELIEF REQUEST  
V-360

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption Is Requested:
  - a) Name and identification number (component tag): CAV-2, CAV-429, CAV-430, CAV-431, CAV-432, CAV-433, CAV-434, CAV-435, and CAV-436 - Reactor Coolant Sample Line and Reactor Building Sump Sample Line isolation valves to the Nuclear Sample Room and Post-Accident Sampling System.
  - b) Function: Reactor Coolant and Reactor Building Sump Sample Line Isolation.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: A
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWP-3300; Observation of valve position to verify accurate remote position indication.
- III. Basis For Requesting Relief: These are solenoid operated valves. The solenoid operators are enclosed in a "can" that is seal welded closed. There is no method to visually verify the valve stem position without cutting the closure weld.
- IV. Alternate Examination: Verification that valve position is accurately indicated by remote indicators will be accomplished indirectly by observation of affected system parameters when the valves are manipulated. These parameters can include items such as establishment and cessation of flow, or change in indicated system pressure or level. These test methods will be incorporated into the plant procedures and the tests will be performed during each refueling outage. (Crystal River is currently operating on a nominal 24 month fuel cycle.)
- V. Implementation Schedule: The Alternate Examination requirements were implemented beginning with refuel cycle VII for CAV-2, and CAV-431. The Alternate examination requirements will be implemented for CAV-429, CAV-430, CAV-432, CAV-433, CAV-434, CAV-435, and CAV-436 beginning with Refuel Outage 10.

## RELIEF REQUEST

V-362

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption Is Requested:
  - a) Name and identification number (component tag): CHV-90, CHV-97, CHV-101, CHV-108 - EFIC Room dedicated chillers isolation valves.
  - b) Function: Isolation of the EFIC Room Coolers from the normal chillers and alignment of the "Appendix R" dedicated chillers.
  - c) ASME Section III Code Class: 3.
  - d) Valve Category: B.
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWP-3300; Observation of valve position to verify accurate remote position indication.
- III. Basis For Requesting Relief: These are solenoid operated valves. The solenoid operators are enclosed in a "can" that is seal welded closed. There is no method to visually verify the valve stem position without cutting the closure weld.
- IV. Alternate Examination: Verification that valve position is accurately indicated by remote indicators will be accomplished indirectly by observation of affected system parameters when the valves are manipulated. These parameters can include items such as establishment and cessation of flow, or change in indicated system pressure or level. These test methods will be incorporated into the plant procedures and the tests will be performed during each refueling outage. (Crystal River is currently operating on a nominal 24 month fuel cycle.)
- V. Implementation Schedule: The Alternate Examination requirements will be met, beginning with refuel cycle VII.

RELIEF REQUEST  
V-364

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption Is Requested:
  - a) Name and identification number (component tag): EFV-55, EFV-56, EFV-57, EFV-58 - Emergency Feedwater injection flow control valves.
  - b) Function: Control the flow to the Steam Generators from the Emergency Feedwater Pumps.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: B.
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWP-3300; Observation of valve position to verify accurate remote position indication.
- III. Basis For Requesting Relief: These are solenoid operated valves. The solenoid operators are enclosed in a "can" that is seal welded closed. There is no method to visually verify the valve stem position without cutting the closure weld.
- IV. Alternate Examination: Verification that valve position is accurately indicated by remote indicators will be accomplished indirectly by observation of affected system parameters when the valves are manipulated. These parameters can include items such as establishment and cessation of flow, or change in indicated system pressure or level. These test methods will be incorporated into the plant procedures and the tests will be performed during each refueling outage. (Crystal River is currently operating on a nominal 24 month fuel cycle.)
- V. Implementation Schedule: The Alternate Examination requirements will be met, beginning with refuel cycle VII.



## RELIEF REQUEST

V-366

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption Is Requested:
  - a) Name and identification number (component tag): LRV-70, LRV-71, LRV-72, LRV-73; Post Accident Hydrogen Purge Isolation.
  - b) Function: Containment Isolation of Post Accident Hydrogen Purge lines.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: A.
- II. Reference Code Requirement That Has Been Determined To Be Impractical: IWP-3300; Observation of valve position to verify accurate remote position indication.
- III. Basis For Requesting Relief: These are solenoid operated valves. The solenoid operators are enclosed in a "can" that is seal welded closed. There is no method to visually verify the valve stem position without cutting the closure weld.
- IV. Alternate Examination: Verification that valve position is accurately indicated by remote indicators will be accomplished indirectly by observation of affected system parameters when the valves are manipulated. These parameters can include items such as establishment and cessation of flow, or change in indicated system pressure or level. These test methods will be incorporated into the plant procedures and the tests will be performed during each refueling outage. (Crystal River is currently operating on a nominal 24 month fuel cycle.)
- V. Implementation Schedule: The Alternate Examination requirements will be met, beginning with Refuel 7.



RELIEF REQUEST  
V-370

DELETED

RELIEF REQUEST  
DF-91-01

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through summer 1983 addenda.

- I. Component For Which Exemption/Relief Is Requested:
  - a) Name and identification number (component tag): DFP-1A and 1B - Diesel Fuel Oil Transfer Pumps.
  - b) Function: Diesel fuel transfer pumps transfer fuel oil from fuel storage to the diesel day tanks.
  - c) ASME Section III Code Class: 3.
  - d) Valve Category: N/A.
- II. Reference Code Requirement That Has Been Determined To Be Impractical:  
IWP-3110; Reference Values referencing required parameters listed in Table IWP-3100-1, measurement of required parameters inlet pressure (P) and differential pressure ( $\Delta p$ ).
- III. Basis For Requesting Relief: The diesel fuel oil transfer pumps are positive displacement pumps. The measurement of differential pressure across a positive displacement pump is not a practical parameter for performance monitoring, since the suction pressure could be varied and the discharge pressure would remain basically the same.

Pump inlet pressure, both prior to starting the pump and during pump operation, for the subject pumps is not a necessary performance parameter since the suction supply shall not be less than a Technical Specification required storage tank minimum volume.
- IV. Alternate Examination: The alternate parameter for monitoring pump performance will be discharge pressure as specified in OMa - 1988, Part 6, Paragraph 5.2. Pump inlet pressure will no longer be a measured parameter for pump testing.
- V. Implementation Schedule: The alternate examination requirements shall be implemented upon receipt of approval of this request.

## 5.0 COLD SHUTDOWN JUSTIFICATIONS

Those valves currently being tested in accordance with the methods of ASME Section XI, which can be tested only during cold shutdown, have been identified and justification provided for the cold shutdown frequency extension.

Below is an index of cold shutdown justifications implemented by this Program.

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COLD SHUTDOWN  
CS-030

DELETED

COLD SHUTDOWN  
CS-060

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): CFV-1 and CFV-2, check valves isolating the "A" train Decay Heat and/or Core Flood line from the Reactor Vessel; CFV-3 and CFV-4, check valves isolating the "B" train Decay Heat and/or Core Flood line from the Reactor Vessel.
- b) Function: These valves are in the flow path from the Core Flood tanks to the Reactor Coolant System (RCS). CFV-1, CFV-2, CFV-3, and CFV-4 provide isolation from the high pressure RCS to the low pressure Core Flood Tanks. CFV-1 and CFV-3 provide isolation from the Decay Heat Removal System as well. CFV-1, CFV-2, CFV-3 and CFV-4 open to allow the core flood tanks to discharge their contents to the RCS when RCS pressure drops below Core Flood tank pressure during a LOCA. CFV-1 and CFV-3 open when initiating Decay Heat System flow to the Reactor Coolant System.
- c) ASME Section III Code Class: 1.
- d) Valve Category: A/C.

II. Basis For Not Exercising Valves, in accordance with IWV-3521: Exercising of these valves during operation is not possible because the operating pressure of the RCS would not allow stroking of these valves either by use of the Core Flood Tanks or the Decay Heat Removal Pumps. The pressure available from these two sources is not capable of overcoming RCS pressure. Also, any flow from these sources would affect RCS boron concentration and reactivity.

III. Testing Currently Being Performed: CFV-1 and CFV-3 shall be full-stroked tested in accordance with IWV-3522 during cold shutdown outages. A partial stroke for CFV-1, 2, 3, and 4 and a closure verification will be performed during cold shutdown outages. CFV-2 and CFV-4 will be disassembled and inspected on a rotating basis during refueling outages to verify full stroke capability. CFV-1 and CFV-3 shall also be leak rate tested per Improved Technical Specification 3.4.13 surveillance requirements.



COLD SHUTDOWN  
CS-120

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valves That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): DHV-1, Decay Heat "A-Train" to core flood system check; DHV-2, Decay Heat "B-Train" to core flood system check.
  - b) Function: During normal plant operation, these normally closed check valves provide isolation between the core flood and decay heat removal system. Additionally, each valve is the second closed check valve that provides reactor coolant isolation from the decay heat removal system.
  - c) ASME Section III Code Class: 1.
  - d) Valve Category: A/C.
- II. Basis For Not Exercising Valves: Exercising of these valves during operation is not possible because the operating pressure of the RCS would not allow stroking of these valves either by use of the Core Flood Tanks or the Decay Heat Removal Pumps. The pressure available from these two sources is not capable of overcoming RCS pressure. Also, any flow from these sources would affect RCS boron concentration and reactivity.
- III. Testing Currently Being Performed: These valves shall be full-stroke exercised open during cold shutdowns and leak tested every refueling outage or per schedule as required by Improved Technical Specification 3.4.13.

COLD SHUTDOWN  
CS-121

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valves That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): DHV-3 and DHV-4, Decay Heat letdown line from Reactor Coolant System.
  - b) Function: During normal plant operation, these valves isolate the Decay Heat Removal System (low pressure) from the reactor coolant hot leg (high pressure). They automatically close when the RCS pressure reaches 284 psig, increasing.
  - c) ASME Section III Code Class: 1.
  - d) Valve Category: B.
- II. Basis For Not Exercising Valves: DHV-3 and DHV-4 have design interlocks which require them to be closed during normal plant operation when the Reactor Coolant System is  $\geq 284$  psig (I.T.S. 3.4.13). Due to their design, these valves cannot be exercised during normal plant operation.
- III. Testing Currently Being Performed: These valves shall be full-stroke exercised and timed during cold shutdowns.

COLD SHUTDOWN  
CS-122

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valves That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag); DHV-5, Decay Heat "A-Train" L.P.I. containment isolation; DHV-6, Decay Heat "B-Train" L.P.I. containment isolation.
  - b) Function: To open upon receiving a low pressure injection (ESAS) signal and also for normal cooldown to Cold Shutdown condition.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: B.
- II. Basis For Not Exercising Valves: EQ 89-0725 and EQ 89-0361 both recommend not to stroke DHV-5 and DHV-6 during normal plant operations. DHV-5 and DHV-6 assist in providing positive isolation of the Reactor Coolant System from the DH System. If these valves were opened during normal plant operation and the line was pressurized upstream of the valves due to leakage past DHV-1 or DHV-2, over-pressurization of the DH System piping could occur.
- III. Testing Currently Being Performed: These valves shall be full-stroke exercised and timed in the open direction during cold shutdowns.

COLD SHUTDOWN  
CS-140

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda

I. Valves That Cannot Be Exercised During Normal Plant Conditions:

- a) Name and identification number (component tag): DWV-160, Demineralized Water Supply to the Reactor Building
- b) Function: This valve is open during normal operations of the plant to supply demineralized water for continuous flushing of the Reactor Coolant Pump seals. It receives an ES signal for Containment Isolation when the Reactor Building reaches 4 psig pressure and increasing.
- c) ASME Section III Code Class: 2.
- d) Valve Category: A

II. Basis For Not Exercising Valves: This valve is normally open during plant operations as described above. Each RC Pump seal receives demineralized water through a small needle valve that, prior to a plant startup, is manually set to a predetermined flow. Once the flow has been set, via local flow indicators, these four separate valves are used in the daily RCS inventory calculations. The cycling of DWV-160, when DW flow is established to the RC Pump seal flushing system, causes the needle valves to receive a surge which changes the preset position of these needles. This, in turn, causes the daily RCS inventory calculations to have an error in them.

III. Testing Currently Being Performed: This valve has been exercised on a quarterly basis up to Refuel 8 Outage. Beginning Refuel 8, this valve will be tested on a Cold Shutdown outage frequency, using the same baseline data as has previously been established. Additionally, this valve tested at least once every two years in the 10 CFR 50, Appendix J, Local Leak Rate Program.

COLD SHUTDOWN  
CS-150

DELETED



COLD SHUTDOWN  
CS-151

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): EFV-7 & EFV-8, Motor driven emergency feed pump 3A auxiliary feedwater stop check to steam generators, and turbine driven emergency feed pump 3B auxiliary feedwater stop check to steam generators, respectively.
- b) Function: These valves are the emergency feedwater pump discharge stop check valves. During normal plant operation, the valves are closed.
- c) ASME Section III Code Class: 3.
- d) Valve Category: C.

II. Basis For Not Exercising Valves: To insure the valve disk comes off its seat requires indication of flow to the OTSG. This cannot be done during normal plant operation as it would require flow of emergency feedwater to the OTSG through the emergency feedwater nozzles, causing undue thermal transients on the upper OTSG nozzles. Additionally, this would cause a transient in the main steam and feedwater control system, subjecting the plant to possible unsafe condition. Valves cannot be partially stroked for the same reasons during normal operating conditions. Additionally, a closure verification would require pressurizing the downstream side of these valves by running one EF pump during normal operations, requiring the same flow requirements as the open test.

III. Testing Currently Be Performed: These valves shall be full-stroke exercised open by flow to the OTSG, during cold shutdowns and verified closed by applying pressure on the downstream side to backseat.

COLD SHUTDOWN  
CS-152

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): EFV-15, EFV-16, EFV-17 & EFV-18, Emergency feedwater to OTSG-A & B checks.
- b) Function: During normal plant operation these valves are closed, providing main steam pressure isolation to the emergency feedwater system.
- c) ASME Section III Code Class: 3.
- d) Valve Category: C.

II. Basis For Not Exercising Valves: To insure the valve disks come off their seats requires indication of flow to the OTSG. This cannot be done during normal plant operation through the emergency feedwater nozzles, as it will cause undue thermal transients on the upper OTSG nozzles. Additionally, this would cause a transient in the main steam and feedwater control system, subjecting the plant to a possible unsafe condition. These valves cannot be partially stroked for the same reasons during normal plant operations.

III. Testing Currently Being Performed: These valves shall be full-stroke exercised open by flow to the OTSG's during cold shutdown.

## COLD SHUTDOWN CS-153

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

### I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): EFV-5 & EFV-6, Motor driven emergency feed pump 3A auxiliary feedwater discharge check to steam generators, and turbine driven emergency feed pump 3B auxiliary feedwater discharge check to steam generators.
- b) Function: These valves are the emergency feedwater pump discharge check valves. During normal plant operation, the valves are closed.
- c) ASME Section III Code Class: 3.
- d) Valve Category: C.

II. Basis For Not Exercising Valves: To insure a full stroke of the valve disk requires initiation of flow to the OTSG. Initiating this flow during normal plant operation would require flow of emergency feedwater to the OTSG through the emergency feedwater nozzles, causing undue thermal transients on the upper OTSG nozzles. Additionally, this would cause a transient in the main steam and feedwater control system.

III. Testing Currently Be Performed: These valves shall be full-stroke exercised open by flow to the OTSG, during cold shutdowns. Partial stroke testing will be performed on a quarterly basis by performing Emergency Feed Pump testing through the minimum flow recirculation lines to the Emergency Feed Tank.

## COLD SHUTDOWN CS-180

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

### I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): FWV-43 & FWV-44; Steam Generator 3B & 3A check valves to emergency feedwater.
- b) Function: Check valves outside containment on emergency feedwater line to OTSG's for containment isolation and prevention of back flow in the line. Valve is closed during normal plant operation.
- c) ASME Section Code Class: 2.
- d) Valve Category: A/C.

### II. Basis For Not Exercising Valves: To insure each valve disk comes off its seat, requires a positive indication of emergency feedwater flow through the emergency feedwater nozzles to the OTSG. These valves can not be partial-stroke nor full-stroke exercised during normal operation without causing undue thermal transients on the upper OTSG nozzles. Exercising these valves would also cause a transient in the main steam and feedwater control systems subjecting the plant to possible unsafe conditions.

### III. Testing Currently Being Performed: These valves shall be full-stroke exercised open during cold shutdowns and verified by flow indication through emergency feedwater flow meters. Closure verification shall be performed by measuring pressure differential across the valves during normal operation at least once every three months, and leak tested at least once every two years per IWV-3422.

COLD SHUTDOWN  
CS-190

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valves That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): FWV-14 and FWV-15, Turbine Driven Main Feedwater Pump Suction Isolation Valves; FWV-28, Main Feedwater Pump 3B to Steam Generator 3A cross tie; FWV-29 and FWV-30, Main Feedwater Block Valves; FWV-31 and FWV-32, Main Feedwater Low-Load Block Valves; FWV-33 and FWV-36, Main Feedwater Throttling Start-up Block Valves.
  - b) Function: These valves are the Main Feedwater Isolation Valves. Under normal conditions these valves are open to various positions to supply feedwater to the steam generators depending on power level and feedwater demand. In the event of reactor trip and/or emergency feedwater initiation, FWV-14, 15, 29, 30, 31 and 32 are automatically isolated by the Integrated Control System (ICS). Automatic controls, independent of the ICS, are designed to assure closure of all Feedwater Block valves (FWV-14, 15, 28, 29, 30, 31, 32, 33 and 36) in the event of a main steam line break to prevent the addition of positive reactivity and a resulting power increase.
  - c) ASME Section III Code Class:  
  
FWV-14, 15, 28: 3.  
FWV-29, 30, 31, 32, 33, 36: 2
  - d) Valve Category:  
  
All: B
- II. Basis For Not Exercising Valves, in accordance with IWB-3411: Full stroke exercising of these valves during Plant Operation is not possible because loss of feedwater supply to a steam generator would likely cause the plant to trip due to low feedwater level in the generator. For this reason partial stroke testing of the end devices has also been discontinued as a part of the monthly Feedwater Isolation Functional Test and only matrix logic is verified.
- III. Testing Currently Being Performed: These valves are presently full-stroke exercised and timed in the closed direction during cold shutdowns.



COLD SHUTDOWN  
CS-210

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): MSV-130 & MSV-148, Steam Generator 3A & 3B drain isolation valves.
- b) Function: These are block valves outside containment to drain the secondary side of the steam generator.
- c) ASME Section III Code Class: 2.
- d) Valve Category: A.

II. Basis For Not Exercising Valves: These valves remain full closed and are not used during normal plant operation. Stroking them during normal plant operation would drain feedwater from the OTSG and create severe system upset transients.

III. Testing Currently Being Performed: These valves shall be full-stroke exercised and timed in the closed direction during cold shutdowns. Additionally, they are tested in accordance with 10CFR50, Appendix J, Type C leak rate testing at least once every two years.

COLD SHUTDOWN  
CS-211

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): MSV-25 & MSV-26, Main Steam Line Atmospheric Dump Valves.
- b) Function: Functions as a Control Valve to provide pressure control for the removal of decay heat from the RCS following a reactor trip; prevents excessive challenges to the Main Steam Safety Valves.
- c) ASME Section III Code Class: 2.
- d) Valve Category: B.

II. Basis For Not Exercising Valves: In order to exercise these valves during normal plant operations, they would have to be isolated from the Main Steam system via single isolation valves MSV-27 (for MSV-25) and MSV-28 (for MSV-26). These isolation valves are manually operated. If significant leakage past the single isolation valve this were to occur, and MSV-25 or MSV-26 were exercised, the steam dumped to atmosphere may cause a transient on the system that could lead to a low main steam pressure event which, if low enough, would actuate the EFIC system.

Additionally, in order to time-stroke exercise MSV-25 and MSV-26, lifted leads, jumpers, etc. are required, as the timing measures the valve stroke using a simulation of current signals to the valves' control system (4-20 ma, close-to-open). For personnel safety reasons, this should not be performed with single valve isolation from the Main Steam system.

III. Testing Currently Being Performed: MSV-25 and MSV-26 are full-stroke exercised during Cold Shutdown outages. Fail-safe testing of these valves naturally occurs as they are air-operated, and the closure signal bleeds air off, simulating a loss of power.

COLD SHUTDOWN  
CS-212

Reference Code: ASME Boiler and Pressure Vessel Code, Section III, 1983 edition through Summer 1983 addenda.

- I. Valves That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): MSV-411, MSV-412, MSV-413, and MSV-414; Main Steam Isolation Valves.
  - b) Function: During normal operation, these normally open Piston Operated Valves provide for Main Steam line isolation in the event of an upstream Main Steam line break to prevent the uncontrolled blowdown of a steam generator; and the addition of positive reactivity to the core and a resulting power increase.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category:
- II. Basis For Not Exercising Valves, in accordance with IWV-3411: Full stroke exercising these valves during plant operation is not practical as it would cause steam generator and feedwater temperature and pressure fluctuation that would likely trip the plant.
- III. Testing Currently Being Performed: These valves are presently part-stroke exercised quarterly during plant operation and full stroke exercised and timed during cold shutdowns.

COLD SHUTDOWN  
CS-213

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valves That Cannot Be Exercised During Normal Plant Operation:
  - a) MSV-55 and MSV-56; Main Steam supply stop-check valves for the turbine driven Emergency Feedwater Pump, EFP-2.
  - b) These stop-check valves have electric motor operators on them to allow the capability of isolation of the respective steam line, when necessary. The motors are normally in the open position to allow the valve to act strictly as a check valve.
  - c) 2
  - d) C
- II. Basis For Not Exercising Valves, in accordance with IWV-3411: Full stroke exercising of the check valve disk in the open direction cannot be performed on a quarterly basis since to do this would require an injection of 500-600 gpm into the Steam Generators with the speed of EFP-2 capable of being maintained.
- III. Testing Currently Being Performed: These valves are presently part-stroke exercised in the open direction quarterly during plant operation, and full-stroke exercised during Cold Shutdown outages by the injection of water into the Steam Generators. Additionally, the motor operator is time stroked open on a quarterly basis.

COLD SHUTDOWN  
CS-214

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valves That Cannot Be Exercised During Normal Plant Operation:
  - a) MSV-186 and MSV-187; Main Steam supply check valves for the turbine driven Emergency Feedwater Pump, EFP-2.
  - b) These check valves are in series with motor operated stop-check valves MSV-56 and MSV-55, respectively, to allow the capability of isolation of the respective steam line in the event of a steam line break.
  - c) 2
  - d) C
- II. Basis For Not Exercising Valves, in accordance with IWV-3411: Full stroke exercising of the check valve disk in the open direction cannot be performed on a quarterly basis since to do this would require an injection of 500-600 gpm into the Steam Generators with the speed of EFP-2 capable of being maintained.
- III. Testing Currently Being Performed: These valves are presently part-stroke exercised in the open direction quarterly during plant operation by operation of EFP-2 in the minimum recirculation flow path, and full-stroke exercised during Cold Shutdown outages by the injection of water into the Steam Generators.



COLD SHUTDOWN  
CS-220

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valve That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): MUV-18, Reactor Coolant Pump Seal Isolation Valve.
  - b) Function: Block valve outside containment for isolation of RC pump seal injection.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: B.
- II. Basis For Not Exercising Valve: Stroking of this valve would interrupt seal injection flow to the RC pump seal packages, resulting in potential damage to the seals. During accident conditions, the valve will remain open for seal cooling from the HPI (MU) pumps. Additionally, this valve is not designed for partial stroking.
- III. Testing Currently Being Performed: This valve shall be full-stroke exercised and timed in the closed direction during cold shutdowns.

COLD SHUTDOWN  
CS-221

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valve That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): MUV-27, Makeup isolation valve to reactor coolant system.
  - b) Function: Normal makeup isolation block valve to reactor coolant system.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: B.
- II. Basis For Not Exercising Valve: Stroking of this valve during normal operation would temporarily isolate normal makeup flowpath to the Reactor Coolant system. Should this valve fail in the closed position during a full stroke test during normal plant operation, the normal means of pressurizer level control is removed. This would cause a potential unsafe plant condition. Additionally, this valve is not designed for partial stroking.
- III. Testing Currently Being Performed: This valve shall be full-stroke exercised and timed in the closed direction during cold shutdowns.

## COLD SHUTDOWN CS-222

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valves That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): MUV-40, MUV-41, and MUV-505; Makeup and Purification System Letdown Coolers MUHE-1A, MUHE-1B, and MUHE-1C, respectively, discharge isolation valves.
  - b) Function: These valves provide discharge isolation to the makeup and purification letdown coolers, and containment isolation.
  - c) ASME Section III Code Class: 1.
  - d) Valve Category: A.
- II. Basis For Not Exercising Valves: The full stroke cycling of these valves would stop the flow of hot water (RCS letdown) through the coolers while the cooling medium continues to flow. The cycling of these valves will thermally shock the heat exchangers by readmitting hot water to a cooled down component. The isolation of the cooling medium (SW system) prior to the stroke of these valves would also thermally shock the components, as cold water would be introduced into a hot environment upon the return of SW flow. These thermal transients have proved in the past that the quarterly stroking of MUV-40 and MUV-41 is not conducive to the safe operation of the plant when, as a result of such testing, the unit had to be removed from service for the replacement of MUHE-1A and MUHE-1B. Additionally, a large amount of exposure to personnel incurred during the replacement activities. MUV-505 and MUHE-1C were added during the Refuel VI outage. Additionally, these valves are not designed for partial stroke.
- III. Testing Currently Being Performed: These valves shall be full-stroke exercised and timed in the closed direction during cold shutdowns and leak tested at least once every two years in accordance with 10CFR50, App. J.

COLD SHUTDOWN  
CS-223

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

I. Valve That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): MUV-49, Letdown Cooler isolation valve.
- b) Function: Letdown cooler isolation block valve outside containment. All RC system letdown passes through this valve.
- c) ASME Section III Code Class: 2.
- d) Valve Category: A.

II. Basis For Not Exercising Valve: Stroking this valve during normal plant operation would temporarily isolate the Reactor Coolant Letdown flowpath. Should this valve fail in the closed position while stroking during normal plant operation, the RC system letdown capabilities would be lost. RC pump seal injection cannot be terminated, therefore the plant would eventually have to be tripped on high pressurizer level. Additionally, this valve is not designed for partial stroking.

III. Testing Currently Being Performed: This valve shall be full-stroke exercised and timed in the closed direction during cold shutdowns and leak tested at least once every two years in accordance with 10CFR50, App. J.

COLD SHUTDOWN  
CS-224

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): MUV-53 and MUV-257 Makeup pump recirculation valves.
- b) Function: MU pumps minimum flow recirculation valves.
- c) ASME Section III Code Class: 2.
- d) Valve Category: B.

II. Basis For Not Exercising Valves: The stroking of these valves during normal plant operation would provide insufficient minimum recirculation flow on the running makeup (high pressure injection) pump. Should either valve fail in the closed position, damage would result to the running pump.

III. Testing Currently Being Performed: These valves shall be full-stroke exercised and timed in the closed direction during cold shutdowns.



COLD SHUTDOWN  
CS-225

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valve That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): MUV-65, Makeup Storage Tank outlet check valve.
  - b) Function: This normally open check valve isolates the makeup tank from the makeup pumps suction preventing backflow from the Decay Heat System and Borated Water Storage Tank.
  - c) ASME Section III Code Class: 3.
  - d) Valve Category: C.
- II. Basis For Not Exercising Valve: There is no practical method to exercise this valve closed during normal operation as this valve provides the suction source for the running make-up pump. Closing this valve would involve providing an alternate suction source from the Borated Water Storage Tank which would cause Reactor Coolant boron concentration fluctuations.
- III. Testing Currently Being Performed: This valve shall be verified able to close during cold shutdowns.

COLD SHUTDOWN  
CS-226

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valve That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): MUV-253, (Outside Containment); MUV-258, MUV-259, MUV-260, MUV-261 (Inside Containment), Controlled bleedoff Reactor Building isolation and controlled bleedoff isolation valves from RC pumps 3A1, 3A2, 3B1 and 3B2.
  - b) Function: Controlled bleedoff of reactor coolant pump seals containment isolation valves.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: A.
- II. Basis For Not Exercising Valves: Quarterly stroking of these valves will temporarily isolate RC Pump controlled bleedoff. Should any of these valves fail in the closed position while full stroking during normal plant operation, the design mode of normal controlled bleedoff of one (1) gpm of the RC pump seal would be lost. This could lead to seal degradation and possibly premature RC pump seal failure. Seal replacement is a high manrem exposure maintenance item. Additionally, these valves are not designed for partial stroking.
- III. Testing Currently Being Performed: These valves shall be full-stroke exercised and timed in the closed position during cold shutdowns and leak tested at least once every two years in accordance with 10CFR50, App J.

COLD SHUTDOWN  
CS-240

WITHDRAWN

COLD SHUTDOWN  
CS-241

DELETED

COLD SHUTDOWN  
CS-242

DELETED



COLD SHUTDOWN  
CS-280

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valve That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): SWV-12, Isolation evaporator packages and seal coolers.
  - b) Function: This valve supplies cooling water to the waste gas compressors, reactor coolant evaporator package, waste evaporator package, and the seal return coolers.
  - c) ASME Section III Code Class: 3.
  - d) Valve Category: B.
- II. Basis For Not Exercising Valve: Testing this valve during normal operation will compromise cooling water to the seal return coolers. It is essential for the valve to remain open to ensure adequate cooling of the MU pump recirculation and RC pump seals controlled bleedoff.
- III. Testing Currently Being Performed: This valve shall be full-stroke exercised and timed in the closed direction during cold shutdowns.

COLD SHUTDOWN  
CS-281

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): SWV-47, SWV-50, SWV-48, SWV-49; RCS purification letdown coolers MUHE-1A, MUHE-1B, and MUHE-1C inlet and discharge cooling medium isolation valves.
- b) Function: These valves provide inlet and discharge isolation to the makeup and purification letdown coolers from the SW (cooling water) system.
- c) ASME Section III Code Class: 2.
- d) Valve Category: B.

II. Basis For Not Exercising Valves: The full stroke cycling of these valves would stop the flow of service water to and from the RCS purification letdown coolers. The SW system provides the cooling medium to these components. The cycling of these valves will thermally shock the heat exchangers by readmitting cold water to a heated component. The isolation of RC water to each component prior to the stroke of these valves would also thermally shock the components, as hot water would be introduced into a cold environment upon the return of RC flow (into the MU system). These thermal transients have proved in the past that the quarterly stroking of SWV-47, 48, 49 and 50 is not conducive to the safe operation of the plant. As a result of such testing, the unit had to be removed from service for the replacement of MUHE-1A and MUHE-1B. Additionally, a large amount of exposure to personnel was incurred during the replacement activities.

III. Testing Currently Being Performed: These valves shall be full-stroke exercised and timed in the closed direction during cold shutdowns.

COLD SHUTDOWN  
CS-282

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

I. Valves That Cannot Be Exercised During Normal Plant Operation:

- a) Name and identification number (component tag): SWV-79, SWV-80, SWV-81, SWV-82, SWV-83, SWV-84, SWV-85, SWV-86, Reactor coolant pumps 3A-2, 3A-1, 3B-2 and 3B-1 inlet isolations and reactor coolant pumps 3A-2, 3A-1, 3B-2 and 3B-1 discharge isolations.
- b) Function: These valves supply cooling water to the RC pumps' motor bearings, air cooler, and seal area cooler during RC pump operation.
- c) ASME Section III Code Class: 2.
- d) Valve Category: B.

II. Basis For Not Exercising Valves: The failure of these valves during full stroke exercising would result in loss of cooling water to the RC pumps' motor bearings, seals and coolers. This could damage the pumps if an operator did not take action to trip the pumps.

III. Testing Currently Being Performed: These valves shall be full-stroke exercised and timed in the closed direction during cold shutdowns.

COLD SHUTDOWN  
CS-283

Reference Code: ASME Boiler and Pressure Vessel Code, Section XI, 1983 edition through Summer 1983 addenda.

- I. Valves That Cannot Be Exercised During Normal Plant Operation:
  - a) Name and identification number (component tag): SWV-109 and SWV-110, Nuclear service water inlet and outlet isolations to Reactor Building.
  - b) Function: These valves furnish cooling water to the control rod drive mechanism (CRDM) stators.
  - c) ASME Section III Code Class: 2.
  - d) Valve Category: B.
- II. Basis For Not Exercising Valves: Exercising these valves would entail loss of cooling water for all CRDM stators until exercising is complete. The loss of cooling water to the CRDM's could result in damage to the stators, putting the plant into a potential shutdown situation for the repair of stators.
- III. Testing Currently Being Performed: These valves shall be full-stroke exercised and timed in the closed direction during cold shutdowns.