THE CONNECTICUT LIGHT AND POWER COMPANY WESTERN MASSACHUSETTS ELECTRIC COMPANY HOLYCIKE WATER POWER COMPANY NORTHERST UNILITIES SERVICE COMPANY WINDTHEAST AND LEER INSERTS CONMENN

General Offices . Selden Street, Berlin, Connecticut

P.O. BOX 270 HARTFORD, CONNECTICUT 06141-0270 (203) 666-6911

January 30, 1985

Docket No. 50-423 B11435

Director of Nuclear Reactor Regulation Mr. B. J. Youngblood, Chief Licensing Branch No. 1 Division of Licensing U. S. Nuclear Regulatory Commission Washington, D. C. 20555

Dear Mr. Youngblood:

Millstone Nuclear Power Station, Unit No. 3 Submittal of Draft Inservice Testing Program for Pumps and Valves

As committed in our response to Question 210.43, Northeast Nuclear Energy Company (NNECO) hereby submits the latest draft of the Millstone Unit No. 3 program for inservice testing (IST) of pumps and valves. Please note that this material is subject to change as a result of the NNECO review process, constraints identified during the preparation of surveillance procedures, and NRC comments. Please also note that relief requests have not been provided at this time, but will be provided with the final version of the program.

We remain available to discuss this material with the Staff, as necessary.

If you have any comments or questions regarding this submittal, please feel free to contact our licensing representative directly.

Very truly yours,

NORTHEAST UTILITIES SERVICE COMPANY et. al

BY NORTHEAST NUCLEAR ENERGY COMPANY Their Agent

W. G. Counsil

Senior Vice President

100 BOO!

STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

Then personally appeared before me W. G. Counsil, who being duly sworn, did state that he is Senior Vice President of Northeast Nuclear Energy Company, an Applicant herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Applicants herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.

Notary Public

My Commission Expires-March 31, 1988

NDE ENGINEERING CONSULTANTS, INC.

P.O. Box 535

Telephone: (203) 429-8769

Storrs, Connecticut 06268 MP-3-85-01

January 7, 1985

Mr. R. W. Pritchard Northeast Utilities Service Co. P.O. Box 270 Hartford, Ct. 06141-0270

Subject: MP-3 Inservice Testing Program (Draft)

Dear Bob:

Enclosed are three (3) copies of the current draft of the Millstone 3 Inservice Testing Program for pumps and valves. Based on my discussions with John Majewski of NUSCo licensing, this information is being provided for your review and submittal to the NRC with the following understandings:

- 1.) This is only an unapproved draft copy and we reserve the right to make additions, deletions and alterations to the program based on the review process, constraints identified during the preparation of surveillance procedures and NRC comments.
- Appropriate relief requests are not provided at this time, but will be provided with the final approved version of the program.

If you have any questions, please feel free to contact me.

Very truly yours,

Dale L. Jones V.P. Engineering

cc: A. Cardillo - 1 enclosure

M. Pearson - 1 enclosure

K. Covin - 1 enclosure

R. Lefebvre

S. Orefice

M. Hess

P. Austin

J. Crockett

MILLSTONE POINT UNIT 3

INSERVICE TESTING PROGRAM (DRAFT)

DOCUMENT NO:

Prepared By:

Approved By:

INSERVICE TESTING PROGRAM

MP-3

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ABSTRACT

The Inservice Testing Program for Millstone Point Unit 3, was developed in accordance with subsections IWA, IWP, and IWV of the ASME Boiler and Pressure Vessel Code, Section XI, _____ Edition, including the _____ Addendum, except where specific relief is requested in accordance with 10CFR 50.55(a)(g)(5)(iii). This program applies to the first inspection interval as defined for Inspection Program B in Subsubarticle IWA-2420 of Section XI.

1.0 INTRODUCTION

1.1 General

This test plan describes the inservice testing (IST) program to verify the operational readiness of certain Class 1, 2, and 3 pumps and valves and their actuating and position indicating systems.

1.2 Codes and Standards

Pursuant to Title 10 of the Code of Federal Regulations,
Part 50, Paragraph 50.55(a), the inservice testing requirements
for the first inspection interval at Millstone Unit 3 (MP-3),
are based on the rules set forth in the 19__ edition of the
ASME Boiler and Pressure Code, Section XI, including Addenda
through ______, 19__, any references to Section XI or the
code refer to the above edition and addenda to Section XI,
unless stated otherwise. Where conformance with certain code
requirements is determined to be impractical, specific relief
will be requested as required by 10CFR 50.55a (g) (5)(iii).
The relief request bases are located in Section ____ of this
test plan.

As permitted by Paragraph 50.55a(g)(4)(iv), the owner may elect, for certain components, to meet the requirements as set forth in subsequent editions and addenda which are incorporated

by reference in Paragraph (b) of 10CFR 50.55a. Any such "upgrading" will be specifically identified by revisions to this document.

1.3 Component Classification

The pumps and valves selected for inclusion in the inservice testing program are classified as Class 1, 2, and 3 based on the classification of the system or portion of system in which they are located. The system code classification scheme used for both inservice testing and inservice inspection is detailed in Section 1.0 of the MP-3 Preservice and Inservice Inspection Manuals (Reference 1).

2.0 REFERENCES

- 2.1 PSI-2.01, Millstone Point Unit 3 Preservice Inspection Plan.
- 2.2 Title 10, Code of Federal Regulations, Part 50.
- 2.3 ASME Boiler and Pressure Vessel Code, Section XI, ____ Edition, including Addenda through ____ 19__.

3.0 DEFINITIONS

The following is a list of definitions for various terms used in the inservice testing program or in the referenced code section.

Active Valve:

Valves which are required to change position to accomplish a specific function.

Exercising:

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

Inservice Life:

The period of time from installation and acceptance until retired from service.

Inservice Test:

A special test procedure for obtaining information through measurement or observation to determine the operational readiness of a valve or pump.

Maintenance

(Valves):

Routine valve servicing or work on a valve undertaken to correct or prevent an abnormal or unsatisfactory condition.

Normal Plant

Operation:

The conditions of startup, hot standby, operation within the normal power range, or cooldown and shutdown of the power plant.

Operational

The capability of a pump or valve to fulfill its function.

Readiness:

Passive Valve:

Valves which are not required to change positions to accomplish a specific function.

Pressure Isolation Valve: A valve required to protect a lower-pressure system from accidental pressurization from the Reactor Coolant System. To qualify as a pressure isolation valve, the following conditions must be met:

- a. The high-pressure system must be connected to the Reactor Coolant System.
- b. There must be high pressure to low pressure interface present in the line.
- c. The pressure isolation valves are located at a Class 1 to Class 2 boundary.
- d. The valves must be in one of the configurations identified in Figure 3.1.
- e. The piping line must have a diameter greater than one inch nominal pipe size.

Pressure isolation valves are classifed as ASME XI category A valves.

PRESSURE ISOLATION VALVE CONFIGURATIONS

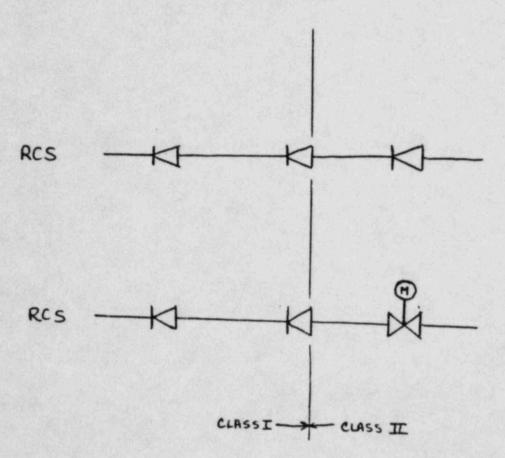


FIGURE 3.1

Routine Servicing
(Pumps):

The performance of planned, preventive maintenance which does not require disassembly of the pump or replacement of pump parts, such as changing oil, flushing the cooling system, adjusting packing, adding packing rings, or mechanical seal maintenance.

System Resistance: The hydraulic resistance to flow in a system.

The Code:

Refers to ASME Boiler and Pressure Vessel Code,

Section XI, _____ Edition, including Addenda

through _____, unless otherwise specified.

4.0 DEVELOPMENT OF THE INSERVICE TESTING PROGRAM

4.1 Valve Classification

- 4.1.1 The valves selected for inclusion in the inservice testing program are classified as follows:
 - a. Category A Valves for which seat leakage is
 limited to a specific maximum amount in the
 closed position for fulfillment of their function.
 - b. Category B Valves for which seat leakage in the closed position a Anconsequential for fulfillment of the continuous anconsequential.

c. Category C - Valves which are self-actuating in response to some system characteristic, such as, pressure (relief valves) or flow direction (check valves).

4.2 Valve Selection Bases

- 4.2.1 The valves selected for inclusion in the IST program include certain Class 1, 2, and 3 valves and their actuating and position indicating systems which are required to perform a specific function in shutting down the reactor to the cold shutdown condition or in mitigating the consequences of an accident.
- 4.2.2 The following valves are exempt from readiness testing under Section XI:
 - a. Valves used only for operating convenience (such as manual vent, drain, instrument, and test valves), valves used for system control (such as pressure-regulating valves), and valves used only for maintenance.
 - b. Valves which are part of external control and protection systems responsible for sensing plant conditions and providing signals for valve operation.

4.3 Required Valve Testing

- 4.3.1 The tests required and their frequencies for the valves designated as Category A, B, and C are listed Table IWV-3700-1. In certain cases it is not practical to test individual valves at the listed frequencies, so other frequencies are specified on the tables in Section 5.0. Where a test frequency has been designated as each refueling outage, a specific request for prepared relief has been as required by 10CFR50.55a(g)(5)(iii). Where a test frequency of each cold shutdown has been specified, no request for relief is required.
- 4.3.2 Cold shutdown testing of valves will be conducted as follows:
 - a. Testing will commence as soon as the cold shutdown condition is achieved, but not later than 48 hours after shutdown and continue until complete, or the plant is ready to return to power.
 - b. Completion of all valve testing is not a prerequisite to return to power.

- shutdown should be performed during any subsequent cold shutdowns that may occur before refueling to as closely as possible meet the Code-specified testing frequency.
- d. For planned cold shutdowns, where ample time is available for testing all the valves identified for the cold shutdown test frequency in the IST program, exceptions to the 48 hours may be taken.
- 4.3.3 Valves or their control systems which are replaced, repaired, or have undergone maintenance which could affect their operation shall be tested to the extent necessary to demonstrate that the performance parameters which could have been affected are within acceptable limits.
- 4.3.4 Valves with remote position indicators shall be observed at least once every two years to verify that valve operation is accurately indicated.
- 4.3.5 Power-operated valves shall be checked for stroke time each time they are full-stroke exercised to meet the requirements of this program.

- 4.3.6 When practical, valves with fail-safe actuators shall be tested for proper actuation upon loss of power each time the valve is exercised to meet the requirements of this program. If the valve can only be part stroked during operation, the fail-safe mechanism shall be tested when the valve is full stroke tested during a cold shutdown.
- 4.3.7 Valves in systems that have been declared inoperable, or are not required to be operable, do not need to be exercised in accordance with the normal schedule.

 These valves, however, must be exercised within 30 days of returning the system to service and the test schedule resumed as required by Paragraph IWV-3416 of the Code.
- 4.3.8 Valves which operate at a frequency which meets or exceeds the required test frequency need not be additionally exercised to meet the requirements of this program, provided that the required observations are made, analyzed, and the resultant data recorded at the specified intervals.
- 4.3.9 The following special testing requirements apply to containment isolation valves

- All containment isolation valves are considered
 Category A valves.
- b. Valves which perform only a containment isolation function and not a pressure isolation* function are exempt from Section XI leak rate testing. These valves are leak rate tested under the requirements of 10CFR 50, Appendix J.

*For a definition of pressure isolation valves, see Section 3.0.

c. Valves which perform only a containment isolation function and are <u>not</u> required to change position on a containment isolation signal, including normally closed checks valves, are considered passive and are exempt from Section XI operability testing.

4.4 Pump Selection Basis

4.4.1 The pumps selected for inclusion in the IST program include Class 1, 2, and 3 centrifugal and displacement type pumps that are required to perform a specific function in the shutting down of the reactor or in mitigating the consequences of an accident and are provided with an emergency power source.

- 4.4.2 The following Code allowed exclusions apply to pump testing:
 - a. Drivers are excluded from the requirements of subsection IWP, except where the pump and driver from an integral unit and the pump bearings are in the driver.
 - b. Class 1, 2, and 3 pumps that are supplied with emergency power solely for operating convenience are excluded.

4.5 Required Pump Testing

4.5.1 Inservice tests shall be conducted with the pump operating at nominal motor speed.

A series of reference values are determined for quantities listed below, as observed or measured when the equipment is known to be operating correctly.

Inservice Test Quantities

Inlet Pressure, Pi Differential Pressure, ΔP Flow Rate, Q

Vibration Signature, V
Proper Lubricant Level or Pressure
Speed N - (if Variable Speed)

In place of Vibration Amplitude, NNECO will use a Vibration Signature Analysis program as described in Section 4.5.4. This program also eliminates the requirement for measuring bearing temperatures annually due to the program's ability to detect bearing problems at a very early stage.

In an inservice test, these quantities are remeasured and compared with the reference values to determine if corrective action is needed. When a reference value or set of values may have been affected by replacement, repair, or routine servicing of the pump, a new reference value or set of values shall be determined or the previous value reconfirmed by an inservice test run within 96 hours after return of the pump to normal service.

4.5.2 Test Frequency

Each inservice test shall include the measurement and observation of applicable test quantities. An inservice test shall be run on each applicable pump, at a frequency and scope as stated in Table IWP. If

possible, this test frequency shall be maintained during plant shutdown. If the pump is not tested during plant shutdown, it shall be tested within one week after the plant is returned to steady state operation.

Pumps that are operating need not be run or stopped for a special test, provided the plant log shows each such pump was operated at reference conditions and the quantities specified were measured, observed, recorded, and analyzed.

4.5.3 Analysis and Corrective Action

4.5.3.1 Analysis of test data shall be performed within 96 hours following completion of the test. The test quantities shall be compared to the allowable range of quantities provided in the appropriate plant test procedure. These ranges may be reduced ranges provided the allowable ranges specified in Table IWP-3100-2 of Section XI cannot be met, and the reduced ranges allow the pump to fulfill its function. Vibration Signature Analysis is covered in Section 4.5.5.

- 4.5.3.2 Corrective action to be taken by NNECO in the event that measured test quantities fall outside the allowable range shall be as follows:
 - Range, the testing frequency shall be doubled until the cause of the deviation is determined and the condition corrected.
 - b) If the deviations fall within the required action range, the pump shall be declared inoperable until the cause of the deviation is determined and the condition corrected.
 - c) Corrective action shall be either replacement or repair per paragraph

 IWB-3111 of Section XI, or shall be an analysis which demonstrates that the condition does not impair pump operability and that the pump will still fulfill its function. When such an analysis is used, a new set of reference values shall be established.

d) If, as a result of the analysis, it is suspected that the deviation may be due to the test instruments being out of calibration, the instruments involved may be recalibrated and the test rerun.

4.5.4 Records of Inservice Tests

- 4.5.4.1 The following information shall be maintained by Millstone to meet the requirements for inservice testing:
 - 1) A record for each pump, including the name of the manufacturer, the model, and the serial or other identification number.
 - 2) An inservice test plan including:
 - a. The hydraulic circuit to be used.
 - b. The location and type of measurement for each required test quantity.

- c. The test quantity reference values, the limits of P_i (Table IWP-3100-2), and any other required information.
- 3) Test record giving pertinent information such as test date, instruments used, results, corrective action required, and signatures of persons conducting and analyzing the test.
- 4) A record of corrective actions and subsequent inservice tests verifying operational adequacy.

All inservice test plans and records shall be maintained at the Millstone Unit No. 3 plant, and shall be accessible for audit.

4.5.5 Vibration Signature Analysis Program

4.5.5.1 General Procedure

During the inservice pump test, vibration data shall be acquired in the form of a vibration signature. The vibration signature

shall consist of a plot of vibration velocity in units of inches per second, versus frequency in cycles per second, normally using a frequency range of 0 to 500 cycles per second. The measurements are made using a mounted vibration sensor which interfaces with a remotely located vibration spectrum analyzer. The vibration signature data is recorded by means of an X-Y plotter.

The measurement locations to be used for quarterly baseline vibration signature data are established and specified for each pump in the NNECO procedures.

4.5.5.2 Data Evaluation and Analysis

The periodically acquired pump vibration signature data shall be compared to the reference values. The evaluation of pump performance and the establishment of an Alert Range and a Required Action Range shall be determined by changes in vibration signature peaks which are of greater sensitivity than overall vibration amplitude.

Signatures will be evaluated using the acceptance criteria of IWP-3100-2. The following equation will be used to convert mils to inches/sec.: v = 52.3 fV (10⁻⁶) where v = velocity in inches/sec., f = frequency in cpm, V = displacement in mils. The acceptance criteria shall be as follows:

4.5.5.2.1 Acceptable

Pump performance is Acceptable
when all values of the velocity
signature fall within the "acceptable"
range specified in the applicable
NNECO pump operational readiness
procedure and all points of the
velocity signature are less than
8VdB above the baseline signature.

4.5.5.2.2 Alert

Pump performance is in the Alert
Range when any value of the
velocity signature which falls
within the "alert" range specified
in the applicable NNECO pump
operational readiness procedure

or any point of the velocity signature which increases by more than 8VdB.

4.5.4.2.3 Required Action Range

Pump performance is in the Required Action Range when any value of the velocity signature which falls within the "required action" range specified in the applicable NNEC amp operational readiness procedure and any point of velocity signature increases by more than 14VdB above the baseline signature.

5.3 Symbols and Abbreviations Used in Valve Test Tables

Valve Type

BFLY. = Butterfly

CHK. = Check

DIA. = Diaphragm

GA. = Gate

GL. = Globe

REL. = Relief

SAF. = Safety

SCHK. = Stop-Check

Test Period

Q = Quarterly

BI = Biennial

CS = Cold Shutdown

RO = Each Refueling

INT = Each Inspection Interval

Required Testing

FT = Check to see if valve goes to its full fail-safe
position on loss of actuator power (paragraph IWV-3415).

FS = Full stroke exercise.

LT = Leak rate test (Subarticle, 3420 or 10CFR50, Appendix J, as appropriate).

MT = Stroke time measurement.

PI = Check for proper operation of remote position indicators (Subarticle IWV-3300).

PS = Part stroke exercise.

SRV = Safety and relief valve test (Subarticle IWV-3500).

Note: Items in parenthesis refers to the appropriate item in Section XI.

TABLE IWP

Pump	Flow Resistance	Speed Control	Inlet Pressure	Differential Pressure	Pump Flow	Vibration Signature	Lubrication	Bearing Temperature	Frequency
Control Buiding									
Chilled Water Pump									
PIA	Variable	Constant	x	Calculated		x		x	Quarterly
P18	Variable	Constant	x	Calculated		x		ž	Quarterly
Quench Spray Pump									
P3A	Fixed	Constant	x	Calculated	x	x	x	x	Quarterly
P3B	Fixed	Constant	x	Calculated	x	x	x	x	Quarterly
Residual Heat									
Removal Pump									
PIA	Variable	Constant	X	Calculated	x	x	X	x	Quarterly
P18	Variable	Constant	x	Calculated	x	x	x	x	Quarterly
Containment Recir-									
culation Pump									
P1A	Variable	Constant	x	Calculated	x	x	x	NA	Quarterly
P1B	Variable	Constant	x	Calculated	x	x	x	NA	Quarterly
PIC	Variable	Constant	x	Calculated	x	x	x	NA NA	Quarterly
PID	Variable	Constant	x	Calculated	x	x	x	NA	Quarterly
Fuel Pool Cooling									
Pump									
PIA	Fixed	Constant	x	Calculated	x	x		x	Quarterly
P18	Fixed	Constant	x	Calculated	X	x		x	Quarterly
Safety Injection									
Pump									
P1A	Variable	Constant	X	Calculated	X	X	X	X	Quarterly
P18	Variable	Constant	x	Calculated	x	x	x	x	Quarterly
Service Water Pump									
PIA	Variable	Constant Sea Level		X		X		NA	Quarterly
P1B	Variable	Constant Sea Level		X		X		NA	Quarterly
PIC	Variable	Constant Sea Level		X		x		NA	Quarterly
P1D	Variable	Constant Ses Level /		x		x		NA	Quarterly
Control Building									
Service Water									
Booster Pump									
P2A	Fixed	Constant	X	Calculated	X	x		X	Quarterly
P2B	Fixed	Constant	x	Calculated	x	x		x	Quarterly

TABLE IWP

	Flow	Speed Control	Inlet Pressure	Differential Pressure	Pump Flow	Vibration Signature	Lubrication	Bearing Temperature	Frequency
Pump	Resistance	speed control	Itessute	Liessute	2104	Signature	Eduticación	resperseure	ireducine
Charging Pump									
Cooling Pump P1A	Fixed	Constant	X	Calculated	X	X		X	Quarterly
Cooling Pump P1B	Fixed	Constant	x	Calculated	X	X		. X	Quarterly
Safety Injection									
Pump									
Cooling Pump P1A	Fixed	Constant	X	Calculated		X X		X	Quarterly
Cooling Pump P1B	Fixed	Constant	x	Calculated		x		x	Quarterly
Reactor Plant									
Component									
Cooling Pump PlA	Variable	Constant	X	Calculated	X	X X X	X	X	Quarterly
Cooling Pump P1B	Variable	Constant	X	Calculated	x	X	X	X	Quarterly
Cooling Pump P1C	Variable	Constant	x	Calculated	X	x	X	×	Quarterly
Boric Acid Trans-									
fer Pump									
P2A	Fixed	Constant				X			Quarterly
P2B	Fixed	Constant				x			Quarterly
Charging Pump									
P3A	Variable	Constant	X	Calculated	X	X	X	X	Quarterly
P3B	Variable	Constant	X	Calculated	X	X	X	X	Quarterly
P3C	Variable	Constant	x	Calculated	X	X	X	X	Quarterly

Steam Generator Auxiliary Feed- water Pump PIA PIB	Fixed Fixed	* Constant Constant	X X	Calculated Calculated	X X	X X	x x	Quarterly Quarterly
Steam Generator Auxiliary Feed- water Pump (Turbine) P2	Fixed	Variable [♠]	x	Calculated	x	x		Quarterly

^{*}Rotative speed measurement required.

System: Reactor Coolant System Drawing: 25212-26902

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RCS-V26	6AC1	снк.		Closed/ Open			Q RO	PS FS LT	J-8 (Sh. 1)	RR-()	Leak test per Section XI
3-RCS-V31	3C1	CHK.		Open/ Closed			CS	PS	J-9 (Sh. 1)		
3-RCS-V32	3C1	сик.		Open/ Closed	•		CS	FS	J-9 (Sh. 1)		
3-RCS-V102	6AC1	CHIK.		Closed/ Open			RO	PS FS LT	B-3 (Sh. 2)	R	Leak test per Section XI
3-RCS-V147	3C1	CHK.		Closed/ Open			cs	FS	B-9 (Sh. 2)		
3-RCS-V148	3C1	снк.		Closed/ Open			cs	FS	B-9 (Sh. 2)		
3-RCS-V167	381	GA.	Hotor	Open*/ Open		Yes	CS BI	FS MT PI	D-5 (Sh. 3)		*May be shut when required to open to perform its safety function.

System: Reactor Coolant System Drawing: 25212-26902

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RCS-V168	381	GA.	Solenoid	Open/ Closed	FC	Yes	CS	FS MT FT PI	C-5 (Sh. 3)	R	
3-RCS-V169	381	GA.	Motor	Open*/ Open		Yes	BI CS BI	FS MT PI	D-3		*May be shut when required to open to perform its safe function.
3-RCS-V170	381	GA.	Solenoid	Closed/ Open	PC	Yes	CS	FS HT FT PI	C-3 (Sh. 3)	R	

System: Reactor Coolant System Drawing: 25212-26902

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RCS-V171	6C1	REL.		Closed/ Open			•	SRV	E-2 (Sh. 3)		*Per IWV-3511 test schedule
3-RCS-V172	6C1	REL.		Closed/ Open			•	SRV	F-2 (Sh. 3)		*Per IW-3511 test schedule
3-RCS-V173	6C1	REL.		Closed/ Open			•	SRV	G-2 (Sh. 3)		*Per IW-3511 test schedule
3-RCS-V960	182	GL.	Solenoid	Closed/ Open	FC	Yes	Q BI	FS MT FT PI	M-6 (Sh. 3)		
3-RCS-V961	182	GL.	Solenoid	Closed/ Open	PC	Yes	Q BI	FS MT FT PI	N-6 (Sh. 3)		
3-RCS-V962	181	GL.	Solenoid	Closed/ Open	FC	Yes	Q	FS MT FT PI	L-5 (Sh. 3)		

System: Reactor Coolant

System
Drawing: 25212-26902

Document No.: Revision No.:

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
-RCS-V963	181	GL.	Solenoid	Closed/ Open	FC	Yes	Q	FS MT FT PI	L-5 (Sh. 3)		
-RCS-V964	182	GL.	Solenoid	Closed/ Open	FC	Yes	9	FS HT FT PI	L-5 (Sh. 3)		
							BI				
-RCS-V965	182	GL.	Solenoid	Closed/ Open	FC	Yes	Q	FS HT FT PI	L-5 (Sh. 3)		
							BI	PI			

System: Chemical and Volume Control System Drawing: 25212-26904 Document No.: Revision No.:

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CHS-V1	282	GA.	Air	Closed*/ Closed	FC	Yes	Q	FS MT FT PI	E-3 (Sh. 5)		*Position depends on plant lineup at time of test
							BI	PI			
3-CHS-V2	282	GA.	Air	Open*/ Closed	FC	Yes	Q	FS HT FT	F-3 (Sh. 5)		*Position depends on plant lineup at time of test
							BI	PI			
3-CHS-V3	282	GA.	Air	Closed*/ Closed	FC	Yes	Q	FS HT	G-3 (Sh. 5)		*Position depends on plant lineup at time of test
							BI	FT PI			
3-CHS-V4	2AC2	REL.		Closed/		Market B		SRV	1-3		*Per IWV-3511 test schedule
				Open			BI	LT	I-3 (Sh. 5)		Leek test per 10CFR50 Appendix J
3-CHS-V5	3A2	GA.	Air	Open/	PC	Yes	cs	FS	J-2		Leak test per 10CFR50
				Closed				HT FT	(Sh. 5)		Appendix J
							BI	HT FT PI LT			

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CHS-V40	482	GA.	Hotor	Open/ Closed		Yes	CS BI	FS HT PI	J-6 (Sh. 1)		
3-CHS-V41	482	GA.	Hotor	Open/ Closed		Yes	CS BI	FS MT PI	J-7 (Sh. 1)		
3-CRS-V46	4C2	CHEK.		Open or Closed/ Open and Closed			9	FS	G-7 (Sh. 1)		
3-CHS-V47	4C2	CHX.		Open or Closed/ Open and Closed			Q	FS	G-9 (Sh. 1)		
3-CHS-V48	402	сих.		Open or Closed/ Open and Closed			Q	PS	G-11 (Sh. 1)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CHS-V56	382	GA.	Motor	Open/ Closed		Yes	cs	FS HT PI	F-3 (Sh. 1)		
							BI	PI			
3-CHS-V57	3A2	GA.	Motor	Open/		Yes	CS	FS	F-6		
				Closed			BI	FS MT PI LT	(Sh. 5)		
2 000 000	21.02										
3-CBS-V58	3AC2	CHR.		Open/ Closed			BI	FS LT	E-4 (Sh. 5)	R	
3-CHS-V59	382	GA.	Air	Open/ Closed	FC	Yes	cs	FS MT FT PI	B-2 (Sh. 5)		
							BI	PI			
3-CHS-V60	382	GA.	Air	Closed/	FO	Yes	cs	PS	C-2		
				Open				FS MT FT PI	(Sh. 5)		
							BI	FT			
							91				
3-CHS-V262	2C2	CHOK.		Open or Closed/ Open and Closed			Q	FS	H-10 (Sh. 1)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CHS-V263	2C2	СНК.		Open or Closed/ Open and Closed			Q	FS	H-9 (Sh. 1)		
3-CR3-V264	2C2	снх.		Open or Closed/ Open and Closed			Q	PS	H-7 (Sh. 1)		
)-CHS-V269	283	GL.	Hotor	Open/ Closed		Yes	CS BI	FS MT PI	F-7 (Sh. 1)		
-CRS-V333	3C3	CHIK.		Closed/ Open	•		cs	FS	H-7 (Sh. 3)		
-C#S-V371	2A2	GL.	Manual	Closed/ Closed			BI	LT	D-5 (Sh. 5)		Passive containment isolation valves Leak test per 10CFR50 Appendix J only - Pen. 6

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CHS-V372	2AC2	снк.		Closed/ Closed			BI	LT	C-4 (Sh. 5)		Fassive containment isolation valves Leak test per 10CFR Appendix J only - Pen. 62
3-CHS-V531	3C2	REL.		Closed/ Open			•	SRV	B-7 (Sh. 1)		*Fer IW-3511 test schedule
3-CRS-V532	2A2	GL.	Motor	Open/ Closed		Yes	CS BI	FS HT PI LT	B-6 (Sh. 1)		Leak test per 10CFR50 Appendix J only - Pen. 23
3-CHS-V533	2A2	GL.	Motor	Open/ Closed		Yes	CS BI	FS HT PI LT	B-4 (Sh. 1)		Leak test per 10CFR50 Appendix J only - Pen. 23
3-CHS-V543	2C2	REL.		Closed/ Open				SRV	A-5 (Sh. 5)		*Per IW-3511 test schedule
3-CHS-V546	3/4AC2	REL.		Closed/ Open			BI	SRV LT	C-5 (Sh. 1)		*Per IWV-3511 test schedule Lesk test per 10CFR50 Appendix J - Pen. 23

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION HORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CRS-V558	1402	REL.		Closed/ Open			•	SRV	J-8 (Sh. 1)		*Per IW-3511 test schedule
3-CHS-V665	282	GA.	Motor	Closed/ Open-Closed		Yes	Q BI	FS MT PI	J-1 (Sh. 1)		
3-CHS-V666	282	GA.	Motor	Closed/ Open-Closed	•	Yes	Q BI	FS MT PI	J-3 (Sh.1)		
3-CHS-V667	282	GA.	Motor	Open*/ Open-Closed	•	Yes	Q BI	FS HT PI	J-1 (Sh. 1)		*May be shut when required to operate
3-CHS-V668	282	GA.	Motor	Open*/ Open-Closed		Yes	Q PI	FS MT PI	J-3 (Sh. 1)		*May be shut when required to operate
3-CHS-V669	2C2	REL.		Closed/ Open			•	SRV	K-1 (Sh. 1)		*Per IWV-3511 test schedule
3-CHS-V670	2C2	REL.		Closed/ Open			•	SRV	K-3 (Sh. 1)		*Per IWV-3511 test schedule

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CHS-V697	282	GL.	Hotor	Open/ Closed		Yes	Q	FS HT	G-8 (Sh. 1)		
							BI	PI			
3-CHS-V698	282	GL.	Motor	Open/ Closed		Yes	Q	FS	G-10 (Sh. 1)		
							BI	PI	(50. 1)		
3-CHS-V699	282	GL.	Motor	Open/ Closed		Yes	Q	FS MT	G-7 (Sh. 1)		
							BI	PI	(58. 1)		
-CHS-V700	182	GL.	Solenoid	Open/ Open		Yes	Q	FS	F-6 (Sh. 1)		Required for safety grade
							BI	PI	(54. 1)		cold shutdown
3-CHS-701	182	GA.	Motor	Closed/ Open		Yes	Q	FS	G-6 (Sb. 1)		Required for safety grade
							BI	HT PI	(80. 1)		cold shutdown
-CHS-V702	482	CA.	Motor	Open/ Closed		Yes	Q	FS	E-7		
				0.000			BI	HT PI	(Sh. 1)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	ТУРЕ	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CHS-V703	4B2	GA.	Motor	Open/ Closed		Yes	Q	FS MT	E-8 (Sh. 1)		
							Bī	PI			
3-CHS-V704	482	GA.	Motor	Open/ Closed		Yes	Q	IS HT	E-11 (Sh. 1)		
							BI	HT PI			
3-CHS-V705	182	GA.	Solenoid	Closed/ Open	PC	Yes	Q	FS HT FT	E-11 (Sh. 1)		Required for safety grade cold shutdown
3-CHS-708	882	GA.	Motor	Open/ Closed	-	Yes	Q	FS	J-10 (Sh. 1)		
							BI	PI			
3-CHS-V709	8B2	GA.	Motor	Open/ Closed		Yes	Q	FS	J-8 (Sh. 1)		
							BI	HT PI			
3-CHS-V710	3B2	GA.	Motor	Closed/ Open		Yes	CS	FS	G-7 (Sh. 3)		
							BI	PI	(54. 3)		
3-CHS-V711	3C3	CHOK.		Closed/ Open			cs	FS	H-4 (Sh. 3)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CHN-V712	352	GA.	Hotor	Closed/ Open		Yes	cs	FS MT	F-4 (Sh. 3)		
							BI	PI			
3-CHS-V802	21/42	GA.	Air	Open/ Closed	FC	Yes	CS	FS HT FT	H-2 (Sh. 5)		Leak test per 10CFR50 Appendix J Only - Pen. 24
							BI	PI LT			

System: Charging Pump Cooling System Drawing: 25212-26905

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CCE-V1	2C3	сик.		Open/ Closed			Q	FS	F-8		
3-CCE-V3	283	GA.	Air	Open/ Closed	FC	Yes	Q BI	FS HT FT PI	G-8		
3-CCE-V11	283	GA.	Air	Open/ Closed	FC	Yes	Q	FS MT FT	E-5		
3-CCE-V13	2C3	CHIK.		Open/ Closed			d BI	PI FS	D-10		
-CCE-V15	283	GA.	Air	Open/ Closed	FC	Yes	Q	FS HT	G-9		
							BI	FT PI			
-CCE-V23	283	GA.	Air	Open/ Closed	PC	Yes	Q	FS MT	D-5		
							BI	FT PI			

System: Acrated

Drains Drawing: 25212-26906 (Sh. 3)

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF	COMMENTS/ SPECIAL REQUIREMENTS
3-DAS-V9	2A2	GA. Air Closed*/ FC Yes Q FS I-10 MT (Sh. 3) FT		Leak test per 10CFk50 Appendix J - Pen. 28 Open when pumping down							
							BI	PI LT			sump
-DAS-V10	2A2	2A2 GA.	Air	Closed*/	FC	Yes	Q	FS	J-10 (Sh. 3)		Leak test per 10CFR50 Appendix J - Pen. 28
				Closed				FT	(34. 3)		Open when pumping down
							BI	PI LT			sump

System: Reactor Plant Gaseous Drains Drawing: 25212-26907

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	туре	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS		
3-VRS-V2	3/4A2	DIA.	Air	Open/ Closed	PC	Yes	Q	FS MT FT	K-6		Lesk test per 10CFR50 Appendix J - Pen. 29		
							BI	FT PI LT					
3-VRS-V3	3/4A2	DIA.	Air	Open/ Closed	FC	Yes	Q	FS MT FT	K-7		Lesk test per 10CFR50 Appendix J - Pen. 29		
							BI	PI LT					
-DGS-V18	3A2	GA.	Air	Closed*/ Closed	FC	Yes	Q	FS HT	G-10		Leak test per 10CFR50 Appendix J - Pen. 27		
							BI	HT FT PI LT			*Open when pumping down sumps		
3-DGS-V19	3A2	GA.	Air	Open/ Closed	FC	Yes	Q	FS	E-10		Leak test per 10CFR50 Appendix J - Pen. 27		
			Closed				BI	FS HT FT PI LT			Appendix 5 - Fen. 27		
								LT					

System: Fuel Pool Cooling System Drawing: 25212-26911

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SFC-V989	4A3	GA.	Hanual	Locked Closed/ Closed			BI	LT	E-3		Leak test per 10CFR50 Appendix J only (passive valve) - Pen. 60
3-SFC-V990	4A3	GA.	Menuel	Locked Closed/ Closed			BI	LT	D-3		Lesk test per 10CFR50 Appendix J only (passive valve) - Pen. 60
3-SFC-V991	4A3	GA.	Menuel	Locked Closed/ Closed	•		BI	LT	C-2		Lesk test per 10CFR50 Appendix J only (passive valve) - Pen. 59
3-SFC-V992	4A3	GA.	Menuel	Locked Closed/ Closed		•	ВІ	LT	D-2		Leak test per 10CFR50 Appendix J only (passive valve) - Pen. 59

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIL-V2	1282	GA.	Hotor	Open/ Closed		Yes	Q BI	FS MT PI	B-6 (Sh. 1)		
3-SIL-V3	12C2	CHOK.		Closed/ Open			Q	FS	B-6 (Sh. 1)		
3-SIL-V4	3/402	REL.		Closed/ Open			•	SRV	J-6 (Sh. 1)		*Per IWV-3511 test schedule
3-SIL-V5	8A2	GA.	Hotor	Open/ Closed		Yes	Q BI	FS MT LT PI	J-6 (Sh. 1)		Leak test per 10CFR50 Appendix J only - Pen. 93
3-SIL-V6	6AC2	CHIK.		Closed/ Open			Q CS BI	PS FS LT	K-5 (Sh. 1)		Leak test per 10CFR50 Appendix J only - Pen. 93
3-SIL-V7	6AC2	CHK.		Closed/ Open			Q CS BI	PS FS LT	K-3 (Sh. 1)		Leak test per 10CFR50 Appendix J only - Pen. 93
3-SIL-V8	1282	GA.	Motor	Open/ Closed		Yes	CS F7	FS MT PI	B-8 (Sh. 1)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIL-VO	12C2	CHK.		Closed/ Open			Q	FS	B-9 (Sh. 1)		
3-SIL-V10	3/402	REL.		Closed/ Open			•	SRV	1-9 (Sh. 1)		*Per IWV-3511 test schedule
3-SIL-V11	8A2	GA.	Motor	Open/ Closed		Yes	Q BI	FS MT LT PI	J-10 (Sh. 1)		Lesk test per 10CFR50 Appendix J only - Pen. 94
3-SIL-V12	6AC2	CHK.		Closed/ Open			Q CS BI	PS FT LT	L-1 (Sh. 1)		Leak test per 10CFR50 Appendix J only - Pen. 94
3-SIL-V13	6AC2	CHK.	•	Closed/ Open			Q CS BI	PS FS LT	L-2 (Sh. 1)		Leak test per 10CFR50 Appendix J only - Pen. 94
3-SIL-V14	1082	GA.	Motor	Open/ Closed		Yes	Q BI	FS MT PI	B-7 (Sh. 2)		
3-SIL-V15	10AC1	CHIK.		Closed/ Open			Q RO	PS LT	B-7 (Sh. 2)	R	Leak test per Section XI

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIL-V16	1082	GA.	Motor	Open/ Closed		Yes	Q BI	FS MT PI	E-7 (Sh. 2)		
9-SIL-V17	10AC2	снк.		Closed/ Open	•		Q RO	PS LT	E-7 (Sh. 2)	R	Leak test per Section XI
3-SIL-V18	1082	GA.	Motor	Open/ Closed		Yes	Q BI	FS HT PI	H-7 (Sh. 2)		
-SIL-V19	10AC2	CHK.		Closed/ Open			Q RO	PS LT	H-7 (Sh. 2)	R	Leak test per Section XI
-SIL-V20	1082	GA.	Motor	Open/ Closed	•	Yes	Q BI	FS MT PI	J-7 (Sh. 2)		
-SIL-V21	10AC2	снж.		Closed/ Open			Q RO	PS LT	J-7 (Sh. 2)	R	Leak test per Section XI
-SIL-V22	8B2	GA.	Motor	Closed/ Open		Yes	Q BI	FS HT PI	J-6 (Sh. 1)		

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VALVE NUMBER	CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIL-V23	882	GA.	Hotor	Closed/ Open		Yes	Q BI	FS HT PI	H-11 (Sh. 1)		
3-SIL-V24	3/4C2	REL.		Closed/ Open			•	SRV	I-8 (Sh. 1)		*Fer IWV-3511 test schedule
3-81L-V25	8A2	GA.	Hotor	Closed/ Open		Yes	CS BI	FS MT LT PI	I-8 (Sh. 1)		Leak test per 10CFR50 Appendix J - Pen. 95
3-SIL-V26	8AC1	сик.		Closed/ Open			Q RO	PS FS LT	K-8 (Sh. 1)	R	Leak test per 10CFR50 Appendix J and Section XI Pen. 95
-SIL-V27	2AC1	CHOK.		Closed/ Open			Q RO	PS FS LT	J-7 (Sh. 1)	R	Leak test per 10CP250 Appendix J and Section XI Pen. 96
3-SIL-V28	8AC1	CHOK.		Closed/ Open			Q RO	PS FS LT	K-8 (Sb. 1)	R	Leak test per 10CFR50 Appendix J and Section XI Pen. 95

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ YUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PER OD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS	
3-SIL-V29	2AC1	сик.		Closed/ Open			Q RO	PS FS LT	J-9 (Sh. 1)	R	Leak test per 10CFR50 Appendix J and Section XI Pen. 96	
3-SIL-V30	3/4A2	g GA.	Air	Closed*/ Closed	PC	Yes	cs	FS MT FT	L-4 (Sh. 1)		*May be opened during testing Leak test per 10CFR50	
							BI	MT FT LT PI			Appendix J only - Pen. 93	
3-SIL-V31	3/4A2	'4A2 GA.	GA. Air	Air	Closed*/ Closed	FC	Yes	cs	FS HT FT	L-3 (Sh. 1)		*May be opened during testing Leak test per 10CFR50
							BI	MT FT LT PI			Appendix J only - Pen. 94	
9-SIL-V34	3/4A2	3/4A2 GA.		Closed*/	PC	Yes	cs	FS	K-8 (Sh. 1)		*May be opened during	
				ornaca				FT	(on. 1)		Leak test per 10CFR50	
							BI	HT FT LT PI			Appendix J only - Pen. 95	

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIL-V38	1A2	GL.	Air	Closed*/ Closed	FC	Yes	Q	FS MT FT PI LT	E-2 (Sh. 2)		*Open only when charging SI accumulators with nitrogen Leak test per 10CFR50
							BI	PI LT			Appendix J only - Pen. 14
3-SIL-V39	1A2	CL.	Air	Closed*/ Closed	FC	Yes	Q	FS HT	C-2 (Sh. 2)		*Open only when charging SI accumulators with nitrogen Leak test per 10CFR50
							BI	PI LT			Appendix J only - Pen. 14
3-SIL-V982	8C2	CHK.		Closed/ Open			CS	FS	I-6 (Sh. 1)		
3-SIL-V983	8C2	CHK.		Closed/ Open			cs	FS	G-11 (Sh. 1)		
3-SIL-V984	6C1	CHK.	•	Closed/ Open			Q CS	PS FS	L-8 (Sh. 2)		
3-SIL-V985	6C1	снк.		Closed/ Open			Q CS	PS FS	J-9 (Sh. 2)		
3-SIL-V986	6C1	CHK.	•	Closed/ Open			Q CS	PS FS	G-9 (Sh. 2)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	туре	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIL-V987	6C1	снж.		Closed/ Open			Q CS	PS FS	D-9 (Sh. 2)		
3-RCS-V30	10AC1	снж.	104	Closed/ Open			CS RO	FS LT	L-9 (Sh. 2)		Leak test per Section XI
3-RCS-V69	6AC1	скх.		Closed/ Open			Q RO	PS FS LT	L-7 (Sh. 7)	R	Leak test per Section XI
-RCS-V71	10AC1	CHIK.		Closed/ Open			CS RO	FS LT	L-9 (Sh. 2)		Leak test per Section XI
-RCS-V107	10AC1	clax.	-	Closed/ Open			CS RO	FS LT	L-8 (Sh. 2)		Leak test per Section XI
-RCS-V142	6AC1	снк.		Closed/ Open	•		Q RO	PS FS LT	L-9 (Sh. 1)	R	Leak test per Section XI
-RCS-V146	10AC1	снк.		Closed/ Open			CS RO	FS LT	L-8 (Sh. 2)		Leak test per Section XI

System: Residual Heat Removal System Drawing: 25212-26912

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RHS-V1	10C2	снк.		Closed/ Open			Q	FS	C-6 (Sh. 1)		
3-RHS-V4	1082	GA.	Hotor	Open/ Closed-Open		Yes	Q BI	FS HT PI	H-7 (Sh. 1)		
9-RHS-V5	10C2	снк.		Closed/ Open			Q	FS	C-10 (Sh. 1)		
-RHS-V8	1082	GA.	Hotor	Open/ Closed		Yes	Q BI	FS HT PI	R-9 (Sh. 1)		
-RHS-V10	4AC2	REL.		Closed/ Open			₩ BI	SRV LT	C-4 (Sh. 1)		*Per IWV-3511 test schedule Leak test per 10CFR50 Appendix J only - Pen. 91
-RHS-V27	4AC2	REL.		Closed/ Open			BI	SRV LT	A-6 (Sh. 1)		*Per IWV-3511 test schedule Leak test per 10CFR50 Appendix J only - Pen. 92
3-RHS-V980	3/4C2	PEL.		Closed/ Open			•	SRV	A-4 (Sh. 1)		*Per IW-3511 test schedule

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RHS-V981	3/4C2	REL.		Closed/ Open			•	SRV	D-3 (Sh. 1)		*Per IWV-3511 test schedule
3-RHS-V994	12A2	GA.	Hotor	Closed/ Open		Yes	CS BI	FS MT LT PI	A-10 (Sh. 1)		Leak test per 10CFR50 Appendix J - Pen. 92
3-RHS-V995	12A2	GA.	Hotor	Closed/ Open		Yes	CS BI	FS MT LT PI	B-5 (Sh. 1)		Leak test per 10CFR50 Appendix J - Pen. 91
3-RHS-V996	12A2	GA.	Hotor	Closed/ Open		Yes	CS BI	FS HT LT PI	A-5 (Sh. 1)		Lesk test per 10CFR50 Appendix J - Pen. 92
3-RHS-V997	12A2	GA.	Notor	Closed/ Open	-	Yes	CS BI	FS HT LT PI	B-4 (Sh. 1)		Lesk test per 10CFR50 Appendix J - Pen. 91
3-RRS-V998	1282	GA.	Hotor	Closed/ Open		Yes	CS BI	FS MT PI	A-3 (Sh. 1)		

System: Residual Heat Removal System Drawing: 25212-26912

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RHS-V999	1282	GA.	Motor	Closed/ Open		Yes	cs	FS HT	E-3 (Sh. 1)		
							BI	Pī			
3-RSS-V1	12A2	2A2 BTFY.	Motor	Open*/ Open		Yes	Q	FS MT	C-9 (Sh. 3)		*Shut only while testing RSS pump, leak test per
							BI	PI LT			10CFR50, Appendix J - Pen. 102
3-RSS-V3	10AC2	снк.		Closed/ Open			INT* BI	PS LT	L-4 (Sh. 3)	R	*Full stroke during spray header flow test, leak test per 10CFP50 Appendix J - Pen. 107
-RSS-V4	12A2	BFLY.	Motor	Open*/ Open		Yes	Q BI	FS MT PI LT	C-8 (Sh. 3)		*Shut only while testing RSS pump, leak test per 10CFR50 Appendix J - Pen. 103

System: Recirculation Spray System Drawing: 25212-26912

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION WORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RSS-V6	10AC2	снк.		Closed/ Open	-		INT* BI	PS LT	X-5 (Sh. 3)	R	*Full stroke during spray header flow test, leak test per 10CFR50 Appendix J - Pen. 108
3-RSS-V7	12A2	RFLY.	Motor	Open*/ Open		Yes	Q BI	FS MT PI LT	C-4 (Sh. 3)		*Shut only while testing RSS pump, leak test per 10CFR50 Appendix J - Pen. 104
3-RSS-V9	10AC2	сик.		Closed/ Open			INT* BI	PS LT	K-7 (Sh. 3)	•	*Full stroke during spray header flow test, leak test per 10CFR50, Appendix J - Pen. 109
3-RSS-V10	12A2	BFLY.	Motor	Open*/ Open		Yes	Q BI	PS MT LT PI	C-2 (Sh. 3)		*Shut only while testing RSS pump, lesk test per 10CFR50, Appendix J - Pen. 105
3-RSS-V12	10AC2	CHIK.		Closed/ Open			INT* BI	PS ET	L-7 (Sh. 3)	1	*Full stroke during spray header flow test, leak test per 10CFR50, Appendix 3 - Pen. 110

System: Recirculation Spray System Drawing: 25212-26912

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RSS-V35	8C2	сик.		Closed/ Open			Q	FS	J-3 (Sh. 3)		
-RSS-V36	8C2	снк.		Closed/ Open			Q	FS	J-6 (Sh. 3)		
3-RSS-V932	482	GA.	Hotor	Closed/ Open		Yes	Q BI	FS MT PI	F-10 (Sh. 3)		
-RSS-V945	482	GA.	Hotor	Closed/ Open	•	Yes	Q BI	FS HT PI	F-5 (Sh. 3)		
-RSS-V954	10A2	BFLY.	Hotor	Open*/ Open		Yes	Q BI	FS MT PI LT	L-9 (Sh. 3)		*Shut only while testing RSS pump, leak test per 10CFR50 Appendix J - Pen. 110
-RSS-V955	10A2	BFLY.	Hotor	Open*/ Open		Yes	Q BI	FS ITT PI LT	J-7 (Sh. 3)		*Shut only while testing RSS pump, leak test per 10CFR50 Appendix J - Pen. 109

System: Recirculation Spray System Drawing: 25212-26912

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RSS-V956	10A2	BFLY	Hotor	Open*/ Open		Yes	Q BI	FS HT PI LT	K-4 (Sh. 3)		*Shut only while testing RSS pump, lesk test per 10CFR50 Appendix J - Pen. 108
3-RSS-V957	10A2	BFLY.	Hotor	Open*/ Open		Yes	Q BI	FS HT PI LT	L-3 (Sh. 3)		*Shut only while testing RSS pump, leak test per 10CFR50 Appendix J - Pen. 107
3-RSS-V974	882	GA.	Hotor	Closed/ Open		Yes	Q BI	FS MT PI	I-9 (Sh. 3)		
3-RSS-V976	882	GA.	Hotor	Closed/ Open		Yes	Q BI	FS MT PI	J-4 (Sh. 3)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIH-V3	4A2	GA.	Motor	Closed/		Yes	cs	FS	H-3		Leak test per 10CFR50
				Open				HT	(Sh. 1)		Appendix J - Pen. 51
							BI	LT			
								HT LT PI			
3-SIH-V4	4A2	GA.	Motor	Closed/		Yes	CS	FS	H-4		Leak test per 10CFR50
				Open				MT	(Sh. 1)		Appendix J - Pen. 51
							BI	LT			Appendix o rea. 31
								FS MT LT PI			
							20				
3-SIH-V5	3AC1	CHK.		Closed/			RO	FS	J-4	R	Lesk test per Section XI
				Open				FS LT	(Sh. 1)		and 10CFR50 Appendix J - Pen. 51
3-SIH-V10	8B2	GA.	Motor	Open/		Yes	CS	PC	A-7		
				Closed			-	FS MT PI	A-7 (Sh. 2)		
							BI	DT	(30. 2)		
							D1				
3-SIH-V11	8C2	CHK.		Closed/			Q	FS	B-7		
				Open					(Sh. 2)		
3-SIH-V12	682	GA.	Motor	Open/		Yes	Q	FS	B-5		
				Closed				FS HT PI	(Sh. 2)		
							BI	PI			

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIH-V13	4C2	снк.		Closed/ Open			Q RO	PS FS	E-2 (Sh. 2)	R	
3-SIH-V15	482	GA.	Hotor	Open/ Closed		Yes	Q BI	FS MT PI	G-4 (Sh. 2)		
3-SIH-V16	682	GA.	Hotor	Open/ Closed		Yes	Q BI	FS MT PI	B-8 (Sh. 2)		
-SIH-V17	4C2	снх.		Closed/ Open			Q RO	PS FS	E-9 (Sh. 2)	R	
-SIH-V19	482	GA.	Hotor	Open/ Closed		Yes	Q BI	FS MT PI	G-8 (Sh. 2)		
-SIH-V20	4A2	GA.	Motor	Open/ Closed		Yes	CS BI	FS MT LT PI	H-7 (Sh. 2)		Leak test per 10CFR50 Appendix J - Pen. 98
-SIH-V22	2AC2	снк.		Closed/ Open			Q RO BI	PS FS LT	K-5 (Sh. 2)	R	Lesk test per 10CFR50 Appendix J - Pen. 98

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIH-V24	2AC2	сик.		Closed/ Open	•		Q RO BI	PS FS LT	K-6 (Sh. 2)	R	Leak test per 10CFR50 Appendix J - Pen. 98
3-SIH-V26	2AC2	снк.		Closed/ Open			Q RO BI	PS FS LT	K-6 (Sh. 2)		Leak test per 10CFR50 Appendix J - Pen. 98
3-SIH-V28	2AC2	CHK.		Closed/ Open			Q RO BI	PS FS LT	K-7 (Sh. 2)		Lesk test per 10CFR50 Appendix J - Pen. 98
3-SIH-V65	3/4A2	GA.	Air	Closed/ Closed	PC	Yes	RO	FS HT FT	I-6 (Sh. 1)	*	Open when being used to perform test following each refueling, leak test
							BI	LT			per 10CFR50 Appendix J - Pen. 51
3-SIH-V75	3/482	REL.		Closed/ Open	•		•	SRV	B-6 (Sh. 2)		*Per IWV-3511 test schedule
3-SIH-V76	682	GA.	Motor	Closed/ Open		Yes	Q	FS MT	C-4 (Sh. 2)		
							BI	MT PI			

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	ТҮРЕ	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIH-V77	682	GA.	Motor	Closed/ Open		Yes	Q BI	FS HT PI	C-5 (Sh. 2)		
)-SIH-V78	682	GA.	Hoter	Open/ Open		Yes	Q BI	FS MT PI	D-5 (Sb. 2)		
-SIH-V81	1\C2	CHK.	•	Closed/ Open			Q	FS	E-4 (Sh. 2)		
-SIH-V82	1582	GA.	Motor	Open/ Closed		Yes	Q BI	FS MT PI	E-4 (Sh. 2)		
-SIH-V83	1482	сик.		Closed/ Open			q	FS	E-8 (Sh. 2)		
-SIH-V84	1582	GA.	Motor	Open/ Closed		Yes	Q BI	FS HT PI	E-8 (Sh. 2)		
-SIH-V92	3/4C2	REL.		Closed/ Open			•	SRV	G-2 (Sh. 2)		*Per IW-3511 test schedu

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-81H-V93	4A2	GA.	Hotor	Closed/ Open		Yes	CS BI	FS HT PI LT	H-3 (Sh. 2)		Leak test per 10CFR50 Appendix J - Pen. 96
3-SIH-V94	3/4A2	GA.	Air	Closed/ Closed	FC	Yes	CS BI	FS MT PI LT	J-4 (Sb. 2)		Open only for testing, leak test per 10CFR50 Appendix J Pen. 99
3-SIH-V99	3/402	REL.		Closed/ Open			•	SRV	H-9 (Sh. 2)		*Per IWV-3511 test schedule
3-SIH-V100	4A2	GA.	Motor	Closed/ Open		Yes	CS BI	FS MT PI LT	H-9 (Sb. 2)		Leak test per 10CFR50 Appendix J - Pen. 97
3-SIH-V101	3/4C2	REL.	·	Closed/ Open			•	SRV	H-7 (Sh. 2)		*Per IWV-3511 test schedule
3-SIH-V102	3/4A2	GA.	Air	Closed*/ Closed	FC	Yes	CS BI	FS MT PI LT	K-4 (Sh. 2)		*Opened for testing, lesk test per 10CFR50, Appendix J Pen. 96

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System: High Pressure Safety Injection Drawing: 25212-26913

VALVE NUMBER	CODE CLASS	ТУРЕ	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SIH-V103	3/4A2	GA.	Air	Closed*/ Closed	PC	Yes	Q BI	FS MT PI LT	J-8 (Sh. 2)		*Opened for testing, leak test per 10CFR50 Appendix J Pen. 97
3-SIH-V104	3/4A2	GA.	Air	Closed*/ Closed	PC	Yes	Q BI	FS HT PI LT	J-8 (Sh. 2)		*Opened for testing, leak test per 10CFR50 Appendix J Pen. 98
3-SIH-V110	2AC1	CHK.		Closed/ Open			Q RO	PS FS LT	K-10 (Sh. 2)		Leak test per Section XI and 10CFR50 Appendix J - Pen. 97
3-SIH-V112	2AC1	снк.		Closed/ Open			RO	PS FS LT	K-9 (Sh. 2)		Leak test per Section XI and 10CFR50 Appendix J - Pen. 97
3-SIH-V962	3B2	GA.	Motor	Open/ Closed		Yes	Q BI	FS HT PI	D-7 (Sh. 2)		
3-SIH-V987	3/4A2	GA.	Air	Closed/ Closed	FC	Yes	Q BI	FS MT PI LT	G-9 (Sh. 1)		Open for teating, leak test per 10CFR50 Appendix J - Pen. 99

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE NODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS, SPECIAL REQUIREMENTS
3-SIH-V988	3/4A2	GA.	Air	Closed/ Closed	PC	Yes	Q BI	FS HT PI	D-9 (Sh. 1)		Open for testing, Lesk test per 10CPR50 Appendix J - Pen. 99
								LT			
3-CHS-V259	882	GA.	Motor	Closed/ Open		Yes	cs	FS MT PI	D-3 (Sh. 1)		
							BI	PI			
3-CHS-V260	882	GA.	Motor	Closed/ Open	•	Yes	cs	FS	D-4		
				орев			BI	HT PI	(SA. 1)		
3-CHS-V261	8C2	снк.		Closed/ Open			RO	PS	B-4 (Sh. 1)	R	
3-RCS-V29	15AC1	сик.		Closed/ Open			RO	FS LT	M-4 (Sh. 1)	R	Leak test per Section XI
3-RCS-V70	1 5 AC1	сик.		Closed/ Open			RC	FS LT	M-5 (Sh. 1)	R	Leak test per Section XI
3-RCS-V106	1 5 AC1	CHK.		Closed/ Open	•		RO	FS LT	M-2 (Sh. 1)	R	Leak test per Section XI

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System: High Pressure Safety Injection Drawing: 25212-26913

VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	ТУРЕ	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REPOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-RCS-V145	15401	снж.		Closed/ Open			RO	FS LT	M-3 (Sh. 1)	R	Leak test per Section XI

System: Safety Injection Pump Cooling Drawing: 25212-26914

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIF IMENTS
3-CCI-V1	1C3	CHK.	•	Closed/ Open			Q	FS	K-5		
3-CCI-V8	103	CHK.		Closed/ Open	•		Q	FS	K-9		

System: Quench Spray System Drawing: 25212-26915

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-QSS-V3	12A2	BFLY.	Hotor	Closed/ Open		Yes	CS BI	FS MT PI LT	E-6		Leak test per 10CFR50 Appendix J - Pen. 100
3-QSS-V4	12AC2	CHK.		Closed/ Open			INT* BI	FS LT	K-6	•	*Full stroke during spray header flow test Leak test per 10CFR50 Appendix J - Pen. 100
3-QSS-V7	12A2	PFLY.	Motor	Closed/ Open		Yes	CS BI	FS MT PI LT	K-8		Leak test per 10CFR50 Appendix J - Pen. 101
3-QSS-V8	12AC2	снк.		Closed/ Open			INT* BI	FS LT	L-8		*Full stroke during spray header flow test Lesk test per 10CFR50 Appendix J - Pen. 101
3-QSS-V9	12B2	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS MT FT PI	G-4		

System: Quench Spray System Drawing: 25212-26915

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
-QSS-V10	1282	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS MT	G-4		
							BI	FT PI			
-QSS-V30	6B2	GA.	Motor	Closed/ Open		Yes	Q	FS	1-4		
							BI	MT PI			
-QSS-V31	6B2	GA.	Hotor	Closed/ Open		Yes	Q	FS MT	1-4		
							BI	PI			
-QSS-V945	1282	BFLY.	Motor	Open/ Closed		Yes	Q	FS	J-6		
							BI	PI			
-QSS-V946	1282	BFLY.	Motor	Open/ Closed		Yes	Q	FS	J-8		
							BI	PI			
-QSS-V976	8C2	CHK.		Closed/ Open			INT*	FS	K-8	R	*Full stroke during spray header flow test
-QSS-V977	8C2	сик.		Closed/ Open			IMI*	FS	K-7	R	*Full stroke during spray header flow test

System: Quench Spray System Drawing: 25212-26915

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VALVE HUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-QSS-V978	12C2	сих.		Closed/ Open			INT*	FS	H-8	R	*Full stroke during spray header flow test
3-QSS-V979	12C2	CHK.		Closed/ Open			INT*	FS	H-7		*Full stroke during spray header flow test

System: Hydrogen Recombiner System Drawing: 25212-26915

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-HCS-V1	2AC2	CHK.		Closed/ Closed-Oper			Q	FS	A-8		
3-HCS-V2	2A2	DIA.	Menuel	Locked Closed/ Closed			BI	LT	B-8		Leak test per 10CFR50 Appendix J (passive) Pen. 111
3-HCS-V3	2A2	DIA.	Manual	Locked Closed/ Closed			BI	LT	B-8		Leak test per 10CFR50 Appendix J (passive) Pen. 111
-HCS-V6	2A2	DIA.	Menuel	Locked Closed/ Closed			BI	LT	B-8		Leak test per 10CPR50 Appendix J (passive) Pen. 113
-HCS-V7	2AC2	CHK.		Closed/ Closed-Open			Q BI	FS LT	A-8		Leak test per 10CFR50 Appendix J (passive) Pen. 113
3-HCS-V8	2AC2	CHK.		Closed/ Closed-Open			Q	FS	A-10		
3-HCS-V9	2A2	DIA.	Manuel	Locked Closed/ Closed			BI	LT	B-10		Leak test per 10CFR50 Appendix J (passive) Pen. 112

System: Hydrogen Recombiner System Drawing: 25212-26915

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-HCS-V10	2A2	DIA.	Hanuel	Locked Closed/ Closed		•	BI	LT	B-10		Leak test per 10CFR50 Appendix J (passive) Pen. 112
3-HCS-V13	2A2	DIA.	Henuel .	Locked Closed/ Closed			BI	LT	B-11		Lesk test per 10CFR50 Appendix J (passive) Pen. 114
3-HCS-V14	2AC2	CKK.		Closed/ Closed-Open			Q BI	FS	A-11		Leak test per 10CFR50 Appendix J - Pen. 114

System: Primary Grade Water System Drawing: 25212-26919

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-PGS-V31	3A2	GA.	Air	Open/ Closed	PC	Yes	Q	FS HT FT	L-1		Leak test per 10CFR50 Appendix J - Pen. 15
							BI	HT FT PI LT			
3-PGS-V32	3A2	GA.	Air	Open/ Closed	FC	Yes	Q	FS MT FT	K-1		Leak test per 10CFR50 Appendix J - Pen. 15
							BI	FT PI LT			

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYFE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CCP-V1	18C3	снж.		Open or Closed/ Open and Closed			cs	FS	F-5 (Sh. 1)		
3-CCP-V2	18C3	снк.		Closed or Open/ Open and Closed			CS	FS	F-6 (Sh. 1)		
3-CCP-V3	18C3	снк.		Open or Closed/ Open and Closed			cs	FS	F-7 (Sh. 1)		
3-CCP-V17	10A2	BFLY.	Motor	Open/ Closed		Yes	Q BI	FS MT PI LT	B-2 (Sh. 2)		Leak test per 10CFR50 Appendix J - Pen. 39
3-CCP-V18	10C2	снж.		Open/ Closed			Q	FS	E-2 (Sh. 2)		
3-CCP-V19	4B3	BFLY.	Motor	Closed/ Open-Closed		Yes	Q BI	FS MT PI	G-2 (Sh. 2)		

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3-CCP-V20 4B3	BFLY.	Motor			INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
			Closed/		Yes	Q	FS	H-2		
			Open-Closed				MT	(Sh. 2)		
						BI	FS HT PI	(04. 2)		
-CCP-V21 4B3	BFLY.	Hotor	Closed/		Yes					
		HOLOE	Open-Closed		ies	Q	FS	F-4		
			open-crosed				MT PI	(Sh. 2)		
						BI	PI			
-CCP-V22 4B3	BFLY.	Motor	Closed/		Yes	Q	FC	F-3		
			Open-Closed			*	WT	(Sh. 2)		
						BI	FS HT PI	(an. 2)		
						D1				
-CCP-V44 6B3 1	BFLY.	Air	Open/	FC	Yes	Q	FS	L-2		
			Closed				MT	(Sh. 2)		
							FT	(04. 2)		
						BI	HT FT PI			
-CCP-V45 6B3 1	BFLY.	Air	Open/	FC	Yes	Q	FS	J-2		
			Closed				HT	(Sh. 2)		
							FT	(04. 2)		
						BI	HT FT PI			
I-CCP-V48 10B2 (GA.	Motor	Open/	•	Yes	Q	FS	E-2		
			Closed				HT	(Sh. 2)		
						BI	PI	(54. 2)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CCP-V49	10A2	GA.	Hotor	Open/ Closed		Yes	Q BI	FS MT PI LT	D-2 (Sh 2)		Leak test per 10CFR50 Appendix J - Pen. 41
-CCP-V59	10A2	GA.	Motor	Open/ Closed		Yes	Q BI	FS MT PI LT	C-10 (Sh. 2)		Leak test per 10CFR50 Appendix J - Pen. 40
-CCP-V60	10C2	CHK.		Open/ Closed			Q	FS	E-10 (Sh. 2)		
-CCP-V80	483	BFLY.	Hotor	Closed/ Open-Closed	•	Yes	Q BI	FS HT PI	N-4 (Sh. 2)		
-CCP-V81	483	BFLY.	Motor	Closed/ Open-Closed		Yes	Q BI	FS MT PI	N-5 (Sh. 2)		
-CCP-V82	483	BFLY.	Motor	Closed/ Open-Closed		Yes	Q	FS MT PI	L-4 (Sh. 2)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CCP-V83	483	BFLY.	Hotor	Closed/ Open-Close	м	Yes	Q BI	FS MT PI	L-3 (Sh. 2)		
3-CCP-V84	683	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS MT FT PI	L-2 (Sh. 2)		
3-CCP-V85	683	BFLY.	Air	Open/ Closed	FC	Yes	Q BI	FS MT FT PI	J-2 (Sh. 2)		
3-CCP-V88	1082	BFLY.	Motor	Open/ Closed		Yes	Q BI	FS MT PI	E-10 (Sh. 2)		
3-CCP-V89	10A2	BFLY.	Hotor	Open/ Closed		Yes	Q	FS MT PI LT	C-10 (Sh. 2)		Leak test per 10CFR50 Appendix J
3-CCP-V105	1883	BFLY.	Air	Closed/ Open	FO	Yes	Q BI	FS HT PI	M-2 (Sh. 1)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	ТҮРЕ	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CCP-V119	1883	BFLY.	Air	Closed/ Open	FO	Yes	Q	FS HT PI	F-9 (Sh. 1)		
							BI	PI			
3-CCP-V122	1683	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS HT FT PI	K-5 (Sh. 1)		
							BI	PI			
3-CCP-V123	1683	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS MT FT PI	K-5 (Sh. 1)		
							BI	PI			
3-CCP-V202	1683	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS MT FT PI	B-6 (Sh. 1)		
							BI	PI			
3-CCP-V203	16B3	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS MT FT FI	C-6 (Sh. 1)		
							BI	PI			

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CCP-V204	1283	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS HT FT PI	K-6 (Sh. 1)		
							BI	PI			
3-CCP-V205	1283	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS MT FT PI	L-6 (Sh. 1)		
							BI	PI			
3-CCP-V288	1283	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS MT FT PI	B-7 (Sh. 1)		
							BI	PI			
9-CCP-V289	1283	BFLY.	Air	Open/ Closed	FC	Yes	Q	FS HT FT PI	C-7 (Sh. 1)		
							BI	PI			
3-CCP-V886	2A2	GA.	Manual	Closed/ Closed			BI	LT	C-1 (Sh. 1)		Leak test per 10CFR50 Appendix J only - Pen. 70 (passive)

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CCP-V887	2A2	GA.	Haqual	Closed/ Closed			BI	LT	D-1 (Sh. 1)		Lesk test per 10CFR50 Appendix J only - Pen. 70 (passive)

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CDS-V55	10A2	BFLY.	Air	Open/ Closed	FC	Yes	CS	FS HT FT PI LT	L-5		Leak test per 10CFR50 Appendix J - Pen. 38
							BI	PI LT			
3-CDS-V56	10A2	BFLY.	Air	Open/ Closed	FC	Yes	cs	FS HT	M-5		Leak test per 10CFR50 Appendix J - Pen. 38
							BI	FS HT FT PI LT			
-CDS-V96	10A2	BFLY.	Air	Open/ Closed	FC	Yes	cs	FS HT	H-1		Leak test per 10CFR50 Appendix J - Pen. 116
							BI	FS HT FT PI LT			
3-CDS-V97	10A2	BFLY.	Air	Open/ Closed	FC	Yes	cs	FS	L-1		Leak test per 10CFR50 Appendix J - Pen. 116
				Liveu			BI	CS FS L-1 HT FT BI PI LT		appearing of real 110	

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
-CDS-V105	10A2	BFLY.	Air	Open/ Closed	FC	Yes	cs	FS HT FT PI LT	J-7		Leak test per 10CFR50 Appendix J - Pen. 72
							BI	PI LT			
-CDS-V106	10A2	BFLY.	Air	Open/ Closed	PC	Yes	CS	FS HT FT PI LT	K-7		Leak test per 10CFR50 Appendix J - Pen. 72
							BI	PI LT			
-CDS-V145	10A2	BFLY.	Air	Open/ Closed	FC	Yes	cs	FS MT FT PI LT	K-10		Lesk test per 10CFR50 Appendix J - Pen. 45
							BI	PI LT			
-CDS-V146	10A2	BFLY.	Air	Open/ Closed	PC	Yes	cs	FS	3-10		Leak test per 10CFR50 Appendix J - Pen. 45
							BI	HT FT PI LT			

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-MSS-V1	30B2	GL.	Steam	Open/ Closed	FC	Yes	Q CS	PS FS MT FT PI	I-4 (Sh. 2)		Full stroke at hot standby before returned to power
							BI	PI			
3-MSS-V2	382	GA.	Air	Closed*/ Closed		Yes	cs	FS MT PI	I-6 (Sh. 2)		*Open while warming steam lines during startup, full
							BI	PI			stroke at hot standby before return to power
3-MSS-V4	3082	GL.	Steam	Open/	FC	Yes	Q	PS	I-8		Full stroke at hot standby
				Closed			Q CS	PS FS MT FT PI	I-8 (Sh. 2)		before return to power.
							BI	FT			
							**				
-MSS-V5	382	GA. Air	Closed*/ Closed		Yes	CS	FS HT	I-10 (Sh. 2)		*Open while warming steam	
					BI PI (Sh. 2)		lines during startup, full stroke at hot stendby before return to power				

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-MSS-V7	3082	GL.	Steam	Open/ Closed	PC	Yes	Q CS	PS FS MT FT PI	1-5 (Sh. 5)		Full stroke at hot standby before return to power
							BI	PI			
3-HSS-V8	382	GA.	Air	Closed*/		Yes	cs	FS MT PI	1-6 (Sh. 5)		*Open while warming steam lines during startup, full
							BI	PI			stroke at hot standby before return to power
3-MSS-V10	30B2	GL.	Steam	Open/	FC	Yes	Q CS	PS	1-9		Full stroke at hot standby
				Closed			CS	PS FS MT FT PI	(Sh. 5)		before return to power
							BI	PI			
3-MSS-V11	382	GA.	Air	Closed*/		Yes	CS	FS	I-10 (Sh. 5)		*Open while warming steam lines during startup, full
							BI	HT PI	(50. 3)		stroke at hot standby before return to power
3-MSS-V12	3BC2	SCHK. Motor Closed/ Open	Motor			Yes	Q	FS	E-1		
			Open			BI	FS MT PI	(Sh. 1)			

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VALVE NUMBER	CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-MSS-V37	3BC2	SCHK.	Motor	Closed/ Open		Yes	Q BI	FS MT PI	H-1 (Sh. 1)		
-MSS-V38	3BC2	SCHK.	Hotor	Closed/ Open		Yes	Q	FS HT PI	C-1 (Sh. 1)		
I-MSS-V47	882	GA.	Motor	Open/ Closed		Yes	Q	FS MT PI	G-4 (Sh. 2)		
-MSS-V48	882	GA.	Air	Closed/ Open	FC	Yes	Q	FS MT FT PI	G-3 (Sh. 2)		
							BI	PI			
-MSS-V49	6C2	SAF.		Closed/ Open			٠	SRV	B-2 (Sh. 2)		*Per IWV-3511 test schedul
MSS-V50	6C2	SAF.		Closed/ Open			•	SRV	C-2 (Sh. 2)		*Per IWV-3511 test schedul
-MSS-V51	6C2	SAF.		Closed/ Open			•	SRV	D-2 (Sh. 2)		*Per IWV-3511 test schedul

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-MSS-V52	6C2	SAF.		Closed/ Open			•	SRV	E-2 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V53	6C2	SAF.		Closed/ Open			•	SRV	F-2 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V54	882	GA.	Motor	Open/ Closed		Yes	91	FS HT PI	G-8 (Sh. 2)		
3-MSS-V55	882	GA.	Air	Closed/ Open	FC	Yes	Q	FS HT FT PI	G-7 (Sh. 2)		
3-MSS-V56	6C2	SAF.		Closed/			BI *				
3-1103-130	002	SAF.		Open Open				SRV	B-5 (Sh. 2)		*Per IW-3511 test schedule
3-MSS-V57	6C2	SAF.		Closed/ Open				SRV	C-5 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V58	6C2	SAF.		Closed/ Open				SRV	D-5 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V59	6C2	SAF.		Closed/ Open				SRV	E-5 (Sh. 2)		*Fer IWV-3511 test schedule

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-MSS-V60	6C2	SAF.		Closed/ Open			•	SRV	F-5 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V61	882	GA.		Open/ Closed		Yes	Q BI	FS MT PI	G-4 (Sh. 5)		
3-MSS-V62	882	GA.	Air	Closed/ Open	PC	Yes	Q	FS HT FT	G-3 (Sh. 2)		
							BI	PI			
3-MSS-V63	6C2	SAF.		Closed/ Open			•	SRV	B-5 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V64	6C2	SAF.		Closed/ Open				SRV	C-5 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V65	6C2	SAF.		Closed/ Open				SRV	D-5 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V66	6C2	SAF.		Closed/ Open			•	SRV	E-5 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V67	6C2	SAF.		Closed/ Open				SRV	F-5 (Sh. 2)		*Per IWV-3511 test schedule

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-MSS-V68	882	GA		Open/ Closed		Yes	Q BI	FS MT PI	G-8 (Sh. 2)		
3-MSS-V69	882	GA.	. Air	Closed/ Open	PC	Yes	Q	FS MT FT	G-7 (Sh. 2)		
							BI	PI			
3-MSS-V70	6C2	SAF.		Closed/ Open			•	SRV	B-10 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V71	6C2	SAF.		Closed/ Open				SRV	C-10 (Sh. 2)		*Per IW-3511 test schedule
3-MSS-V72	6C2	SAF.		Closed/ Open				SRV	D-10 (Sh. 2)		*Per IW-3511 test schedule
3-MSS-V73	6C2	SAF.		Closed/ Open			•	SRV	E-10 (Sh. 2)		*Per IWV-3511 test schedule
3-MSS-V74	6C2	SAF.		Closed/ Open			•	SRV	F-10 (Sh. 2)		*Per IWV-3511 test schedule

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VALVE NUMBER	CODE CATGY.	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-MSS-V893	882	GA.	Hotor	Closed/ Open		Yes	Q BI	FS HT PI	G-4 (Sh. 2)		
3-MSS-V894	882	GA.	Hotor	Closed/ Open		Yes	Q BI	FS MT PI	G-8 (Sh. 2)		
3-MSS-895	882	GA.	Hotor	Closed/ Open		Yes	Q BI	FS MT PI	H-3 (Sh. 2)		
9-MSS-896	882	GA.	Hotor	Closed/ Open		Yes	Q	FS MT PI	H-8 (Sh. 2)		
-MSS-V897	382	GA.	Air	Closed/ Open	FO	Yes	9	FS MT FT PI	D-2 (Sh. 1)		
-MSS-V898	382	GA.	Air	Closed/ Open	PO	Yes	d BI	FS HT FT PI	F-2 (Sh. 1)		
							BI	PI			

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-HSS-V899	382	GA.	Air	Closed/ Open	PO	Yes	Q	FS MT FT PI	B-1 (Sh. 1)		
							BI	PI			
3-BDG-V3	482	GA.	Air	Open/ Closed	PC	Yes	Q	FS MT FT PI	E-6 (Sh. 2)		
							BI	PI			
3-BDG-V10	482	GA.	Air	Open/ Closed	FC	Yes	Q	FS HT FT PI	E-4 (Sh. 2)		
							BI	PI			
3-BDG-V17	482	GA.	Air	Open/ Closed	FC	Yes	9	FS HT FT PI	E-8 (Sh. 2)		
							BI	PI			
1-8DG-V24	482	GA.	Air	Open/ Closed	FC	Yes	Q	FS MT FT PI	E-11 (Sh. 2)		
							BI	PI			

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COURD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-FWS-V20	1882	GA.	Hydraulic	Open/ Closed	PC	Yes	cs	FS MT FT PI	H-2 (Sh. 1)		
							BI	PI			
3-FWS-V27	1882	GA.	Hydraulic	Open/ Closed	FC	Yes	CS	FS MT FT PI	H-4 (Sh. 1)		
							BI	PI			
3-PWS-V34	1882	GA.	Hydraulic	Open/ Closed	FC	Yes	cs	FS MT FT PI	H-6 (Sh. 1)		
							BI	PI			
3-FWS-V41	1882	GA.	Hydraulic	Open/ Closed	FC	Yes	cs	FS MT FT PI	H-8 (Sh. 1)		
							BI	PI			
3-FWS-V898	2002	снж.		Open/ Closed			cs	PS	I-2 (Sh. 1)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-FWS-V899	20C2	сик.		Open/ Closed			CS	FS	I-2 (Sh. 1)		
3-FWS-V920	20C2	CHK.		Open/ Closed			cs	FS	I-2 (Sh. 1)		
-FWS-V921	20C2	CHK.		Open/ Closed			cs	FS	I-2 (Sh. 1)		
-FWA-V3	6C3	CHK.		Closed/ Open			cs	FS	H-4 (Sh. 2)		
-FWA-V7	3C3	CKK.		Closed/ Open			cs	FS	J-4 (Sh. 2)		
-FWA-V9	4C2	CHIX.		Closed/ Open			cs	FS	L-4 (Sh. 2)		
-FWA-V12	3C3	CHIX.		Closed/ Open			CS	FS	J-2 (Sh. 2)		
-FWA-V14	4C2	CHOK.		Closed/ Open			cs	FS	L-2 (Sh. 2)		
-FWA-V17	8C3	сик.		Closed/ Open			cs	FS	E-8 (Sh. 2)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-FWA-V21	3C3	CHK.		Closed/ Open			cs	FS	I-7 (Sh. 2)		
3-FWA-V23	4C2	снк.		Closed/ Open			cs	FS	K-7 (Sh. 2)		
3-FWA-V26	3C3	снк.		Closed/ Open			cs	FS	H-10 (Sh. 2)		
3-FWA-V28	4C2	CHK.		Closed/ Open			cs	FS	J-10 (Sh. 2)		
3-FWA-V31	8C3	CHIX.		Closed/ Open			cs	FS	E-10 (Sh. 2)		
3-FWA-V35	3C3	CHK.		Closed/ Open			cs	FS	H-11 (Sh. 2)		
3-FWA-V39	3C3	CHIK.		Closed/ Open			cs	FS	H-8 (Sh. 2)		
3-FWA-V43	3C3	CHIK.		Closed/ Open			cs	FS	J-5 (Sh. 2)		
3-FWA-V47	3C3	CHK.		Closed/ Open			cs	FS	J-3 (Sh. 2)		

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3-FWA-V882	6C3	снк.		Closed/ Open			cs	FS	L-4 (Sh. 2)		
3-FWA-V883	6C3	CHIK.		Closed/ Open			cs	FS	J-7 (Sh. 2)		
3-FWA-V884	6C3	снк.		Closed/ Open			CS	FS	J-10 (Sh. 2)		
3-FWA-V885	603	CHIK.		Closed/ Open			cs	FS	L-2 (Sh. 2)		
3-FWA-V915	2C3	REL.		Closed/ Open			•	SRV	D-10 (Sh. 2)		*Per IWV-3511 test schedul

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SWP-V1	30C3	снк.		Open or Closed/ Open and Closed			Q	FS	C-2 (Sh. 1)		
3-SWP-V2	30B3	BFLY.	Hotor	Open or Closed/ Open and Closed		Yes	Q BI	FS MT PI	C-2 (Sh. 1)		
3-SWP-V3	30C3	CHK.		Closed or Open/ Open and Closed			9	FS	C-4 (Sh. 1)		
3-SWP-V4	3083	BFLY.	Hotor	Closed or Open/ Open and Closed		Yes	Q BI	FS HT PI	C-4 (Sh. 1)		
3-SWP-V5	30C3	CHK.		Open or Closed/ Open and Closed			9	FS	C-7 (Sh. 1)		

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VALVE NUMBER	CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SWP-V6	30B3	BFLY.	Hotor	Open or Closed/ Open and Closed		Yes	Q BI	FS HT PI	C-7 (Sh. 1)		
3-SWP-V7	30C3	CHK.		Closed or Open/ Open and Closed			Q	FS	C-9 (Sh. 1)		
3-SWP-V8	30C3	BFLY.	Motor	Closed or Open/ Open and Closed		Yes	Q BI	FS HT PI	C-9 (Sh. 1)		
3-SWP-V10	6C3	снк.		Open/ Closed			Q	FS	C-11 (Sh. 2)		
3-SWP-V17	1083	BFLY.	Air	Closed/ Open	FO	Yes	Q BI	FS HT FT PI	E-8 (Sh. 2)		
3-SWP-V25	1883	BFLY.	Motor	Closed/ Open		Yes	RO BI	FS HT PI	D-6 (Sh. 2)		

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3-SWP-V27 18B3 BFLY. Motor Closed/ - Yes RO FS D-5 R Open - Yes CS FS I-11 (Sh. 2) BI PI 3-SWP-V29 18B3 BFLY. Motor Open/ - Yes CS FS I-11 (Sh. 2) BI PI 3-SWP-V33 30B3 BFLY. Motor Open/ - Yes CS FS K-6 (Sh. 2) BI PI 3-SWP-V43 6C3 CHK Open/ Q FS C-3 (Sh. 2) Closed - Q FS E-4 (Sh. 2) BI PI BI PI	VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SWP-V29 18B3 BFLY. Motor Open/ - Yes CS FS I-11 (Sh. 2) BI PI (Sh. 2) 3-SWP-V33 30B3 BFLY. Motor Open/ - Yes CS FS K-6 (Sh. 2) BI PI (Sh. 2) BI PI (Sh. 2) BI PI (Sh. 2) 3-SWP-V43 6C3 CHK Open/ Q FS C-3 (Sh. 2) 3-SWP-V50 10B3 BFLY. Air Closed/ FO Yes Q FS E-4 (Sh. 2)	-SWP-V27	18B3	BFLY.	Motor			Yes		FS MT	D-5 (Sh. 2)	R	
Closed BI PI 3-SWP-V33 30B3 BFLY. Motor Open/ - Yes CS FS K-6 Closed BI PI 3-SWP-V43 6C3 CHK Open/ Q FS C-3 Closed 3-SWP-V50 10B3 BFLY. Air Closed/ FO Yes C FS E-4 Open MT (Sh. 2) BI PI (Sh. 2) BI PI (Sh. 2) BI PI (Sh. 2)								BI	PI			
3-SWP-V33 30B3 BFLY. Motor Open/ - Yes CS FS K-6	-SWP-V29	1883	BFLY.	Motor			Yes	cs	FS MT			
Closed BI PI 3-SWP-V43 6C3 CHK Open/ Q FS C-3 Closed (Sh. 2) 3-SWP-V50 10B3 BFLY. Air Closed/ FO Yes Q FS E-4 Open MT (Sh. 2)								BI	PI			
3-SWP-V43 6C3 CHK Open/ Q FS C-3 (Sh. 2) 3-SWP-V50 10B3 BFLY. Air Closed/ FO Yes Q FS E-4 Open MT (Sh. 2)	-SWP-V33	3083	BFLY.	Motor			Yes	cs	FS	K-6 (Sh. 2)		
Closed (Sh. 2) 3-SWP-V50 10B3 BFLY. Air Closed/ FO Yes Q FS E-4 Open MT (Sh. 2)								BI	PI			
Open MT (Sh. 2)	-SWP-V43	6C3	CHK.					Q	FS			
Open MT (Sh. 2) FT BI PI	-SWP-V50	1083	BFLY.	Air		FO	Yes	Q	FS			
BI PI					Open				HT	(Sh. 2)		
								BI	PI			
3-SWP-V58 18B3 BFLY. Motor Clesed/ - Yes RO FS F-5 R Open MT (Sh. 2)	-SWP-V58	18B3	BFLY.	Motor			Yes	RO	FS	F-5	R	
Open MT (Sh. 2) BI PI					Open				HT	(Sh. 2)		

System: Service Water

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SWP-V60	18B3	BFLY.	Motor	Closed/ Open		Yes	RO	FS	F-7 (Sh. 2)	R	
							BI	HT PI			
3-SWP-V62	1883	BFLY.	Motor	Open/ Closed		Yes	cs	FS MT PI	J-2 (Sh. 2)		
							BI	PI	(30. 2)		
-SWP-V65	30B3	BFLY.	Motor	Open/ Closed		Yes	cs	FS MT PI	K-2 (Sh. 2)		
							BI	PI	(00. 2)		
-SWP-V72	3B3	GA.	Motor	Closed/ Open			Q	FS HT	B-2 (Sh. 1)		
-SWP-V73	381	GA.	Motor	Closed/ Open		•	Q	FS HT	B-5 (Sh. 1)		
-SWP-V74		úA.	Hotor	Closed/ Open			Q	FS HT	B-8 (Sh. 1)		
-SWP-V75	3B3	GA.	Motor	Closed/ Open			Q	FS HT	B-10 (Sh. 1)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SWP-V97	283	GA	Motor	Open/ Closed		Yes	Q BI	FS MT PI	J-2 (Sh. 1)		
3-SWP-V99	283	GA.	Motor	Open/ Closed		Yes	Q BI	FS MT PI	J-9 (Sh. 1)		
3-SWP-V297	3/403	REL.		Closed/ Open			٠	SRV	D-8 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V299	3/403	REL.	•	Closed/ Open				SRV	D-4 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V301	3/4C3	REL.		Closed/ Open			•	SRV	D-10 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V302	3/403	REL.		Closed/ Open		•	•	SRV	C-3 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V305	3/403	REL.		Closed/ Open			•	SRV	G-4 (Sh. 2)		*Per IW-3511 test schedule
3-SWP-V306	3/4C3	REL.		Closed/ Open			•	SRV	G-8 (Sh. 2)		*Per IWV-3511 test schedule

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SWP-V307	3/403	REL.		Closed/ Open				SRV	G-9 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V308	3/403	REL.		Closed/ Open			•	SRV	G-3 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V309	3/403	REL.		Closed/ Open			•	SRV	G-10 (Sh. 2)		*Per IW-3511 test schedule
3-SWP-V310	3/4C3	REL.		Closed/ Open			•	SRV	G-2 (Sh. 2)		*Per IW-3511 test schedule
3-SWP-V311	3/4C3	REL.	•	Closed/ Open			•	SRV	C-7 (Sh. 2)		*Per IW-3511 test schedule
3-SWP-V312	3/403	REL.		Closed/ Open			•	SRV	H-6 (3h. 2)		*Per IWV-3511 test schedule
3-SWP-V313	3/4C3	REL.		Closed/ Open			•	SRV	C-6 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V314	3/403	REL.		Closed/ Open	•		•	SRV	H-7 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V315	3/403	REL.		Closed/ Open				SRV	M-5 (Sh. 2)		*Per IWV-3511 test schedule

System: Service Water

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SWP-V316	3/403	REL.		Closed/ Open			•	SRV	M-3 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V317	3/4C3	REL.		Closed/ Open			•	SRV	M-4 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V318	3/4C3	REL.		Closed/ Open				SRV	L-8 (Sh. 2)		*Per IW-3511 test schedule
3-SWP-V319	3/4C3	REL.		Closed/ Open				SRV	L-1 (Sh. 2)		*Per IWV-3511 test schedule
3-SWP-V823	3/4C3	REL.		Closed/ Open			•	SRV	H-10 (Sh. 1)		*Per IWV-3511 test schedule
3-SWP-V825	3/4C3	REL.		Closed/ Open	•			SRV	K-10 (Sh. 1)		'>r IWV-3511 test schedule
3-SWP-V854	3C3	CHK.	•	Closed/ Open	•		Q	FS	F-10 (Sh. 1)		
3-SWP-V862	383	GATE	Hotor	Closed/ Open		Yes	Q BI	FS MT PI	G-10 (Sh. 1)		

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SWP-V867	3C3	снк.		Closed/ Open			Q	FS	I-10 (Sh. 1)		
3-SWP-V875	383	GA.	Motor	Closed/ Open		Yes	Q BI	FS HT PI	J-10 (Sh. 1)		
3-WTC-V1	383	GA.	Air	Closed*/ Closed	FC	Yes	Q 	FS MT FT PI	E-8 (Sh. 1)		*Open during chlorination
-WTC-V11	383	GA.	Air	Closed*/	FC	Yes	BI Q	FS	I-7 (Sh. 1)		*Open during chlorination
-WTC-V12	3B3	GA.	Air	Closed*/ Closed	FC	Yes	&r	MI FT FS MI FI PI	I-5 (Sh. 1)		*Open during chlorination
							BI	PI			
-WTC-V972	3B3	GA.	Air	Open/ Closed	FC	Yes	Q	FS HT FT	E-9 (Sh. 1)		
							BI	PI			

System: Service Water

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-WTC-V998	3B3	GA.	Air	Open/ Closed	FC	Yes	Q BI	FS MT FT PI	I-4 (Sh. 1)		
3-WTC-V999	3B3	GA.	Air	Open/ Closed	PC	Yes	Q	FS MT FT PI	I-8 (Sh. 1)		

System: Service and Instrument Air System Drawing: 25212-26938

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SAS-V50	2A2	GL.	Henuel	Closed/ Closed			BI	LT	E-4 (Sh. 1)		Leak test per 10CFR50 Appendix J (passive) - Pen. 52
3-SAS-V875	2A2	GL.	Manual .	Closed/ Closed			BI	LŤ	F-4 (Sh. 1)		Leak test per 10CFR50 Appendix J (passive) - Pen. 52
3-1AS-V131 1\u00e4A2	1442	GA.	Air	Closed*/ Closed	FC	Yes	CS BI	FS MT FT PI LT	E-5 (Sh. 3)		*May be open during operation Leak test per 10CFR50
								LT			Appendix J - Pen. 54
-1AS-V809	2A2	GA.	Motor	Open/	•	Yes	cs	FS	F-5		Leak test per 10CFR50
				Closed			BI	MT PI LT	(Sh. 3)		Appendix J - Pen. 54

System: Nitrogen Supply System Drawing: 25212-26939

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
9-GSN-V181	1A2	GA.	Air	Open/ Closed	FC	Yes	Q BI	FS MT FT PI LT	C-10		Lesk test per 10CFR50 Appendix J - Pen. 124
-GSN-V962	1A2	GA.	Air	Open/ Closed	PC	Yes	Q BI	FS HT FT PI LT	D-10		Leak test per 10CFR50 Appendix J - Pen. 124

System: Reactor Plant Sampling System Drawing: 25212-26944 (Sh. 2)

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	туре	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SSR-V1	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS MT FT PI LT	J-3		Leak test per 10CFR50 Appendix J - Pen. 12
							BI	PI LT			
3-SSR-V2	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS MT FT PI LT	J-5		Leak test per 10CFR50 Appendix J - Pen. 12
							BI	PI LT			
-SSR-V3	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS MT FT PI LT	1-3		Leak test per 10CFR50 Appendix J - Pen. 12
							BI	PI LT			
-SSR-V4	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS HT	1-5		Leak test per 10CFR50 Appendix J - Pen. 12
							BI	HT FT PI LT			Appendix 3 - ren. 12

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System: Reactor Plant Sampling System Drawing: 25212-26944 (Sh. 2)

VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SSR-V5	3/882	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS MT	н-3		
							BI	PT PI			
3-SSR-V6	3/8B2	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS HT	H-2		
							BI	PT PI			
-SER-V7	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS HT FT PI LT	H-3		Leak test per 10CFR50 Appendix J - Pen. 12
							BI	PI LT			
-SSR-V8	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS MT	H-5		Leak test per 10CFR50 Appendix J - Pen. 12
							BI	MT FT PI LT			
-SSR-V9	3/8B2	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS HT	G-3		
							BI	FT PI			

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VALVE NUMBER	CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SSR-V10	3/8B2	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS HT	E-2		
							BI	HT FT PI			
3-SSR-V:1	3/8B2	GA.	Solenoid	Closed/ Open	PC	Yes	Q	FS MT FT PI	F-2		
							BI	PI			
3-SSR-V12	3/8B2	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS HT	F-2		
							BI	HT FT PI			
-SSR-V13	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS MT FT	F-3		Leak test per 10CFR50 Appendix J - Pen. 13
							BI	HT FT PI LT			
)-SSR-V14	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS HT	F-5		Leak test per 10CFR50 Appendix J - Pen. 13
							BI	PT PI LT			

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System: Reactor Plant Sampling System Drawing: 25212-26944 (Sh. 2)

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SSR-V19	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS HT FT PI LT	D-3		Leak test per 10CFR50 Appendix J - Pen. 13
3-SSR-V20	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS MT FT PI LT	D-5		Leak test per 10CFR50 Appendix J - Pen 13
							BI	PI LT			
3-SSR-V21	3/4A2	GA.	Solenoid	Open/ Closed	PC	Yes	Q	FS MT FT PI LT	B-3		Leak test per 10CFR50 Appendix J - Pen. 12
							BI	FT			
								LT			
-SSR-V22	3/4A2	GA.	Solenoid	Open/ Closed	FC	Yes	Q	FS HT FT PI LT	B-5		Leak test per 10CFR50
				Closed				FT			Appendix J - Pen. 12
							BI	PI			
								LT			

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System: Reactor Plant Sampling System Drawing: 25212-26944 (Sh. 2)

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SSR-V978	3/882	GA.	Solenoid	Closed/ Closed	FC	Yes	Q	FS HT	1-2		
							BI	FT PI			

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and Ventilation Drawing: 25212-26953

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CVS-V2	2A2	DIA.	Air	Closed*/ Closed	FC	Yes	cs	FS HT FT PI LT	E-3		*Receives a CIA signal Leak test per 10CFR50 Appendix J - Pen. 35
							BI	PI LT	D-3		
)-CVS-V3	2A2	DIA.	Air	Closed*/ Closed	FC	Yes	cs	FS MT FT PI LT	D-3		*Receives a CIA signal Leak test per 10CFR50 Appendix J - Pen. 35
							BI	PI LT			appeaula 5 - rea. 55
-cvs-v6	2A2	2A2 DIA.	Air	Closed*/ Closed	PC	Yes	CS	FS MT	E-6		*Receives a CIA signal Leak test per 10CFR50 Appendix J - Pen. 36
							BI	HT FT PI LT			Appendix 5 - rea. 30
3-CVS-V7	2A2	DIA.	Air	Closed*/ Closed	FC	Yes	CS	FS MT FT PI LT	D-6		*Receives a CIA signal Leak test per 10CFR5G Appendix J - Pen. 36
							BI	PI LT			Appendix 5 - Feb. 30

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-CVS-V13	2A2	DIA	Hanual	Closed/ Closed			BI	LT	E-4		Leak test per 10CFR50 Appendix J (locked closed) Pen. 121
3-CVS-V19	8A2	BFLY.	Air	Closed/ Closed			BI	LT	G-2		Lesk test per 10CFR50 Appendix J - Pen. 37
3-CVS-V20	8A2	GA.		Locked Closed/ Closed			BI	LT	E-2		Lesk test per 10CFR50 Appendix J (locked closed) Pen. 37
3-CVS-V971	2A2	GA.	Hotor	Closed/ Closed			BI	LT	P-4		Leak test per 10CFR50 Appendix J (passive) - Pen. 121
3-HVU-V1	42A2	BFLY.	Air	Closed/ Closed			BI	LT	E-10		Leak test per 10CFR50 Appendix J (passive) - Pen. 85
3-HVU-V2	42A2	BFLY.	Air	Closed/ Closed	•		BI	LT	G-10		Leak test per 10CFR50 Appendix J (passive) - Pen. 85
3-HVU-V3	42A2	BFLY.	Air	Closed/ Closed	•		BI	LT	E-7		Leak test per 10CFR50 Appendix J (passive) - Pen. 86

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-HVU-V4	42A2	BFLY.	Air	Closed/ Closed			BI	LT	G-7		Leak test per 10CFR50 Appendix J (passive) - Pen. 86
3-HVU-V5	30A2	BFLY.	Menuel	Closed/ Closed			BI	LT	F-10		Leak test per 10CFR50 Appendix J (passive) - Pen. 85

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS	The second second
3-CMS-V4	1A2	GA.	Air	Open/ Closed	PC	Yes	Q	FS HT FT PI LT	E-4		Leak test per 10CFR50 Appendix J - Pen. 64	THE RESERVE THE
							BI	PI LT				
3-CMS-V5	1A2	GA.	Air	Open/ Closed	FC	Yes	Q	FS MT FT PI LT	F-4		Leak test per 10CFR50 Appendix J - Pen. 64	
							BI	PI LT				
3-CMS-V8	1A2	GA.	Air	Open/ Closed	PC	Yes	Q	FS MT FT PI LT	E-2		Leak test per 10CFR50 Appendix J - Pen. 63	
							BI	PI LT				
3-CMS-V993	1A2	GL.	Motor	Open/ Closed		Yes	Q	FS MT PI LT	C-2		Leak test per 10CFR50 Appendix J - Pen. 63	
							BI	PI LT				

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SSP-V1	3/8B2	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS HT	C-7		
							BI	HT FT PI			
3-SSP-V2	3/882	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS MT FT PI	C-8		
							BI	PI			
-SSP-V3	3/8B2	GA.	Solenoid	Closed/ Open	PC	Yes	Q	FS HT	C-9		
							BI	HT FT PI			
-SSP-V4	3/8B2	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS HT	C-6		
							BI	FT PI			
-SSP-V5	3/8B2	GA.	Solenoid	Closed/ Open	PC	Yes	Q	FS HT FT PI	C-7		
							BI	PI			

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VALVE NUMBER	CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SSP-V6	3/882	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS MT	C-8		
							BI	PT PI			
3-SSP-V9	3/8B2	GA.	Solenoid	Closed/ Open	FC	Yes	9	FS HT FT PI	C-10		
							BI	PI			
3-SSP-V10	3/882	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS HT FT PI	C-11		
							BI	PI			
3-SSP-V11	3/4A2	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS MT FT PI	D-8		Leak test per 10CFR50 Appendix J - Pen. 115
							BI	PI			
3-SSP-V12	3/4A2	GA.	Solenoid	Closed/ Open	FC	Yes	Q	FS MT	D-9		Leak test per 10CFR50 Appendix J - Pen. 120
							BI	FT PI			

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	туре	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE HODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-SSP-V13	3/4A2	GL.	Manuel	Locked Closed/ Closed			BI	LT	E-8		Lesk test per 10CFR50 Appendix J (passive) - Pen. 115
3-SSP-V14	3/4A2	GL.	Hanual '	Locked Closed/ Closed			BI	LT	E-9		Leak test per 10CFR50 Appendix J (passive) - Pen. 120

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VALVE NUMBER	SIZE CODE CATGY. CODE CLASS	TYPE	ACTUATION	POSITION NORMAL/ FUNCTION	FAILURE MODE	REMOTE POSITION INDICATOR	TEST PERIOD	REQUIRED TESTING	COORD.	RELIEF REQUESTS	COMMENTS/ SPECIAL REQUIREMENTS
3-FPW-V661	6A2	GL.	Manual	Locked Closed/ Closed			BI	LT	C-4 (Sb. 2)		Lesk test per 10CFR50 Appendix J (passive valve) Pen. 56
3-FPW-V663	6A2	BFLY.	Air	Closed/ Closed			BI	LT	C-4 (Sh. 2)		Leak test per 10CFR50 Appendix J (passive valve) Pen. 56
3-FPW-V666	6A2	GL.	Manual	Locked Closed/ Closed			BI	LT	B-4 (Sh. 2)		Leak test per 10CFR50 Appendix J (passive val) Pen-56
3-FPW-V668	6A2	BFLY.	Air	Closed/ Closed			BI	LT	B-4 (Sh. 2)		Leak test per 10CFR50 Appendix J (passive valve) Pen. 56