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U.S. Nuclear Regulatory Commission  
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Re: St. Lucie Units 1 and 2  
Docket Nos. 50-335 and 50-389  
Fifth 10-Year Interval  
Inservice Testing (IST) Program Plan

Enclosed please find the Florida Power & Light Company (FPL) Fifth 10-Year Interval Inservice Testing (IST) Program Plan for St. Lucie.

The Fifth 10-Year 1ST Interval began on February 11, 2018.

The Fifth 10-Year Interval 1ST Program Plan for St. Lucie Units 1 and 2 is based on the requirements of the ASME OM Code, 2004 Edition with Addenda through 2006.

The IST Relief Requests for the Fifth 10-Year IST Interval have been submitted separately. If you have any questions please contact Mike Snyder, St. Lucie Licensing Manager, at (772) 467-7036.

Sincerely,

A handwritten signature in black ink, appearing to read 'Michael J. Snyder', is written over a horizontal line.

Michael J. Snyder  
Licensing Manager  
St. Lucie Nuclear Plant

MJS/KWF

Enclosure

cc: Regional Administrator, Region II, USNRC  
Senior Resident Inspector, USNRC, St. Lucie Plant

Inservice Testing Program  
5<sup>th</sup> 10-Year Interval

Florida Power and Light Company  
St. Lucie Nuclear Plant

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## INTRODUCTION

### 1.0 PURPOSE

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

- Shutdown the reactor to the safe shutdown condition,
- Maintaining the safe shutdown condition,
- To mitigate the consequences of an accident.

St. Lucie Plant, Unit 1 was designed and licensed to operate with the Hot Standby condition defined as the “safe” shutdown condition as a minimum, with the capability to proceed to cold shutdown should conditions warrant.

St. Lucie Plant, Unit 2 was designed and licensed to operate with “safe shutdown” being defined depending on plant operating conditions as hot standby, hot shutdown or cold shutdown. “Capability for safe shutdown,” in all cases, is defined as maintaining the capability to reach cold shutdown conditions even through cold shutdown may not be required for maintaining the plant in a safe condition.

### 2.0 SCOPE

The IST program plan has been prepared to meet the requirements of the American Society of Mechanical Engineers (ASME) OM Code 2004 Edition through 2006 Addenda (ASME OM Code 2004/2006a). Mandatory Appendix II of the ASME OM Code 2001 Edition through 2002 Addenda (as modified by 10 CFR 50.55a(b)(3)(iv)(A), (B) and (D)) will be used for check valve condition monitoring activities.

A. ASME OM Code 2004/2006a, Subsection ISTA, “General Requirements”

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

B. ASME OM Code 2004/2006a, Subsection ISTB, “Inservice Testing of Pumps in Light-Water Reactor Nuclear Power Plants”

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

C. ASME OM Code 2004/2006a, Subsection ISTC, “Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plants”

ISTC establishes the requirements for inservice testing of valves in light-water reactor nuclear power plants. The valves covered include those

which provide overpressure protection and those which are required to perform a specific function, either actively through the changing of valve obturator position or passively by maintaining required obturator position in shutting down a reactor to the safe shutdown condition, in maintaining the safe shutdown condition, or in mitigating the consequences of an accident.

D. ASME OM Code 2004/2006a, Mandatory Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants"

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

E. ASME OM Code 2004/2006a, Mandatory Appendix II, "Check Valve Condition Monitoring Program"

Provides an alternative to the testing or examination requirements of ISTC-3510 through ISTC-5221. The purpose of this program is both to improve valve performance and to optimize testing, examination, and preventive maintenance activities in order to maintain the continued acceptable performance of a select group of check valves.

The St. Lucie Nuclear Plant fifth 120-month Pump and Valve Inservice Testing Plan for Units 1 and 2 will be in effect as follows:

Unit 1	Begin: February 11, 2018	End: February 10, 2028
Unit 2	Begin: February 11, 2018	End: February 10, 2028

The key features of the IST program plan are list of submitted and approved Relief Requests, Cold Shutdown Justifications, Refuel Outage Justification, Plant Technical Positions and Pump and Valve table listings. Administrative procedures, surveillance testing procedures, and other records required to define and execute the Inservice Testing Program are all retained and available.

### 3.0 INSERVICE TESTING PLAN FOR PUMPS

A. Pump Inservice Testing Plan Description

This testing program for pumps meets the requirements of the ASME OM Code 2004 edition through 2006a, Section ISTB "Inservice Testing of Pumps in Light-Water Reactor Nuclear Power Plants". Where these requirements have been determined to be impractical, specific requests for relief were written and are included in Attachment 1. NRC Generic

Letter 89-04 and NUREG-1482, Revision 2 have been used as guidance in the development of the IST Program.

B. Pump Plan Table Description

The pumps included in the St. Lucie Nuclear Plant IST Plan are listed in Attachment 6. The information contained in these tables identifies those pumps which are required to be tested to the requirements of Subsection ISTB of the ASME OM Code 2004 Edition through 2006 Addenda, along with their applicable tests, and test frequencies. The Pump Plan Table is divided into sections based upon Plant System. The headings for the pump tables are delineated below.

Pump Number	A unique identifier for the pump. Each pump is preceded with a Unit designator for the pump 1: Unit 1 2 : Unit 2
Pump Name	The descriptive name for the pump
P&ID	The Piping and Instrumentation Drawing on which the pump is represented.
P&ID Coord	The P&ID Coordinate location of the pump.
IST Group	Pump Group as defined in ISTB-2000. Group A: Continuous or routinely operated pumps Group B: Standby pumps not operated routinely N/A: Not Applicable (Skid Mounted)
Safety Class	The ASME Code classification of the pump. 1: Class 1 2: Class 2 3: Class 3 NC: Non-Code, Safety Related NS: Non-Safety Related
Pump Type	Centrifugal Positive Displacement Vertical Line Shaft
Pump Driver	Motor driven Turbine Steam turbine driven

Test Type	DIS-P <sup>(1)</sup>	Discharge Pressure (Measured only for positive displacement pumps)
	dP <sup>(1)</sup>	Differential Pressure as calculated by subtracting the suction from the discharge pressures or obtained by direct measurement.
	Q <sup>(1)</sup>	Flow Rate as measured using a rate or quantity meter installed in the pump test circuit.
	S <sup>(1)</sup>	Pump Speed (Measured only for variable speed pumps)
	SKID	Parameter(s) as determined by St. Lucie Plant are verified through the testing of the sub-assemblies parent/major component
	V <sup>(1)</sup>	Vibration, (Pump bearing).
<sup>(1)</sup> Following the specification of each 'Test Type', a letter will be denoted as to which of the following test criteria will be applied: a – Denotes a Group A Pump Test b – Denotes a Group B Pump Test c – Denotes a Comprehensive Pump Test		
Test Frequency	The frequency for performing the specified Inservice Test. 3M Quarterly (92 Days) 2Y Two Years (Biennial) CS Cold Shutdown	
Relief Request	A relief request number is listed when a specific Code requirement is determined to be impracticable.	
Technical Position	Reference a Technical Position(s) by it's specific number(s). A Technical Position is written to document how Code requirements are being implemented at the plant when the requirement(s) of the Code are not easily interpreted.	

#### 4.0 INSERVICE TESTING PLAN FOR VALVES

##### A. Valve Inservice Testing Plan Description

This testing program for valves meets the requirements of the ASME OM Code 2004 edition through 2006a, Section ISTC "Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plants"; Mandatory Appendix I "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear Power Plants"; Mandatory Appendix II Check Valve

Condition Monitoring Program” with the limitations imposed by 10 CFR 50.55a(b)(3)(iv)(A), (B) and (D). Where these requirements are determined to be impractical, specific requests for relief have been written and are included in Attachment 2.

Where the frequency requirements for valve testing have been determined to be impracticable, Cold Shutdown or Refuel Outage Justifications have been identified and written. These justifications are provided in Attachments 3 and 4 respectively.

B. Valve Plan Table Description

The valves in Attachment 7 list all ASME Class 1, 2, 3 and NC Valves that have been scoped to be with in the IST Program and have been assigned Valve Categories. Valves exempt per ASME OM Code ISTC-1200 are not listed. The Valve Plan Table is divided into sections by Plant System. The following information is included for each valve.

Valve Number	A unique identifier for the valve. Each Valve is preceded with a Unit designator:  1: Unit 1 2: Unit 2
Valve Name	The description of the valve
P&ID	The Piping and Instrumentation Drawing (P&ID) number on which the valve appears. (If the valve appears on multiple P&IDs, the primary P&ID will be listed.)
P&ID Coordinator	The drawing coordinate location on the P&ID for the valve
Safety Class	The ASME Classification of the valve:  1 ASME Code Class 1 2 ASME Code Class 2 3 ASME Code Class 3 NC Non-Code, Safety Related

IST Category	<p>The category(s) assigned to the valve based on the definitions per ASME OM Code ISTC-1300. The following categories are defined in the Code:</p> <p>Category A – Valves for which seat leakage is limited to a specific maximum amount in the closed position for fulfillment of their function.</p> <p>Category B – Valves for which seat leakage in the closed position is inconsequential for fulfillment of their function.</p> <p>Category C – Valves, which are self-actuating in response to some system characteristic, such as pressure (relief valves) or flow direction (check valves).</p> <p>Category D – Valves, which are actuated by an energy source capable of only one operation, such as rupture disks or explosive-actuated valves.</p> <p>N/A – Valves which have been included into the IST Program as the result of either a regulatory or utility commitment.</p>	
Valve Size	The nominal size of the valve, in inches.	
Valve Type	The valve body design as indicated by the following:	
	3W	3-Way Valve
	4W	4-Way Valve
	ANG	Angle Valve
	BAL	Ball Valve
	BFT	Butterfly Valve
	CK	Check Valve
	DIA	Diaphragm Valve
	GA	Gate Valve
	GL	Globe Valve
	NDL	Needle Valve
	PCCHECK	Power Check Valve
	PLG	Plug Valve
	PLT	Pilot Valve
	RPD	Rupture Disk
	RV	Relief Valve



	SCK	Stop Check Valve
	SV	Safety Valve
	XFC	Excess Flow Check Valve
Actuator Type	The actuator type abbreviation.	
	AO	Air Operator
	HO	Hydraulic Operator
	M	Manual
	MO	Motor Operator
	PO	Power Operated
	SA	Self-Actuating
	SAP	Self-Actuated Pilot
	SO	Solenoid Operator
Active/Passive	Active or Passive function determination for the valve in accordance with ISTA-2000	
	A	Active
	P	Passive
	N/A	Not Applicable (Non-Safety Related Valves)
Normal Position	The normal position of the valve during normal power operation. If the valves system does not operate during power operation, then the normal position is the position of the valve when the system is not operating.	
	C	Closed
	FLOW	Flow straight through a 3-way valve
	LC	Locked Closed
	LO	Locked Open
	LT	Locked Throttled
	N/A	Not Applicable
	O	Open
	SYS	System Condition Dependent
	TH	Throttled
	VENT	Vent out the side of a 3-way valve

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

C	Closed
D	De-energized (3-way and 4-way valves)
FLOW	Flow straight through a 3-way valve
LT	Locked Throttled
N/A	Valve has no Safety Related Position
O	Open
O/C	Open or Closed
VENT	Vent out the side of a 3-way valve

**Test Requirement**      The test(s) that will be performed to fulfill the requirements of ASME OM Code ISTC. The definitions and abbreviations are identified below:

CC	Exercised Closed – Check Valve <sup>1</sup>
CO	Exercise Open – Check Valve <sup>1</sup>
CP	Partial Exercise Open <sup>1</sup>
D&I	Disassembly and Inspect
DT	Rupture Disk / Explosive Valves
FSC	Fail Safe Test Closed
FSO	Fail Safe Test Open
FSS	Fail Safe Supply (3-way)
FSV	Fail Safe Vent (3-way)
LT-J	Leakage Rate Test (Appendix J)
LT-S	Leakage Rate Test (Seat, ISTC-3630)
ME	Manual Exercise
OPR	Operator Rounds (condition monitoring)
PIT	Position Indication Test
RVT	Relief Valve Test
SD	Solenoid De-energize
SE	Solenoid Energize
ST-C	Stroke Time Closed

ST-O	Stroke Time Open
TMP	Temperature Monitoring
VAC	Vacuum Breaker Test

<sup>1</sup> Three letter designations may be used for Check Valve Condition Monitoring tests to differentiate between the various methods of exercising check valves. The letter following "CC" or "CO", or "CP" is "A" for acoustics, "D" for disassembly and inspection, "F" for flow indication, "L" for leakage, "M" for magnetics, "NI" for non-intrusive, "O" for Normal Plant Operation, "R" for radiography, "T" for temperature, "U" for ultrasonic, V for visual, or "X" for manual exercise.

**NOTE**

The frequency listed in the Program Plan is that frequency as required by the applicable section for the Code. The test/operator activity which is performed for which credit is taken may occur more frequently.

**Test Frequency**

The test frequency abbreviation.

AppJ	Appendix J
CS	Cold Shutdown
M3	Quarterly
OP	Operating Activities
RR	Refuel Outage
XR	Refueling Interval (18 months) X = number of intervals
2Y	Every 2 years
5Y	Every 5 years
10Y	Every 10 years
PIV	Technical Specification Pressure Isolation Valve Test Frequency

**Relief Request**

The applicable Relief Request as it applies to the subject test.

**Deferred Justification**

This field refers to either an applicable Cold Shutdown Justifications or Refuel Outage Justifications.

Cold Shutdown Justification	A document that provides a justification as allowed by ISTC-3510 to extend the applicable testing frequency to that which coincides with the plants "Cold Shutdown" frequency. A Cold Shutdown Justification is identified by its unique number identifier which has a "CS" prefix. Cold Shutdown Justifications are contained in Attachment 3 of this document.
Refuel Outage Justification	A document that provides a justification as allowed by ISTC-3510 to extend the applicable testing frequency to that which coincides with the plants "Refuel Outages" frequency. A Refuel Outage Justification is identified by its unique number identifier which has a "RJ" prefix. Refueling Outage Justifications are contained in Attachment 4 of this document.
Technical Position	A Technical Position is a document which is used by the utility/Owner to clarify their interpretation of Code requirements when it is felt by the utility or Owner that either the requirements of the Code are not easily interpreted or when they simply want to document how Code requirement is being implemented at the plant. Technical Positions are identified by their unique number identifier which contains a "TP" prefix. Technical Positions are contained in Attachment 5 of this document.

Also in this column are identified the applicable Check Valve Condition Monitoring Program groups, when applicable.

ATTACHMENT 1

LIST OF PUMP RELIEF REQUESTS

Designator	Description	Approval Date
PR-01	Charging Pump Vibration Frequency Response Range	January 26, 2018 (ML18018A033)
PR-02	Hydrazine Pump Vibration Frequency Response Range	January 26, 2018 (ML18018A033)
PR-03	Hydrazine Pump Flow Testing	January 26, 2018 (ML18018A033)
PR-04	Low Pressure Safety Injection Pump Group Classification	January 26, 2018 (ML18018A033)
PR-05	LPSI Pressure Instrumentation	January 26, 2018 (ML18018A033)
PR-06	Boric Acid Makeup (BAM) Pumps Quarterly Flow Test	January 26, 2018 (ML18018A033)
PR-07	Not Used	
PR-08	Not Used	
PR-09	Relief from Comprehensive Pump Testing for Intake Cooling Water (ICW) Pumps	January 26, 2018 (ML18018A033)

ATTACHMENT 2

LIST OF VALVE RELIEF REQUESTS

No Valve Relief Requests Were Required

### ATTACHMENT 3

#### COLD SHUTDOWN JUSTIFICATIONS

Cold Shutdown Justification No.	Description
CS-01	Pressurizer Spray Control Valves – Unit 1
CS-02	Reactor Coolant System Vents
CS-03	Auxiliary Pressurizer Spray Valves
CS-04	Letdown Line Isolation Valves
CS-05	Volume Control Tank Outlet Valve
CS-06	RCP Seal Water Return Valves
CS-07	SI Pump Discharge Check Valves
CS-08	Shutdown Cooling Suction RCS Isolation Valves
CS-09	Main Steam Isolation Valves
CS-10	Main Steam Isolation Valve Bypass Valves
CS-11	Main Feedwater Pump Isolation Valves
CS-12	Main Feedwater Isolation Valves
CS-13	RCP Cooling Water Supply / Return Isolation Valves
CS-14	SIT Vent Valves
CS-15	Primary Containment Instrument Air Supply
CS-16	Unit 2 Containment Purge Valves

ATTACHMENT 3

**CS-01 Pressurizer Spray Control Valves – Unit 1**

<u>Valve Number</u>	<u>System</u>	<u>Class</u>	<u>Category</u>	<u>Unit</u>
1-PCV-1100E	RCS	1	B	1
1-PCV-1100F	RCS	1	B	1

**Function**

These angle valves are the Unit 1 Pressurizer Spray Valves. During normal power operations, these two air operated valves are used to control RCS pressure by automatically throttling the spray flow into the pressurizer. During a post LOCA recovery, hot leg injection into the reactor may be required. One alternate flowpath for hot leg injection is via the auxiliary spray line into the pressurizer and out through the surge line into the RCS hot leg. To insure the maximum hot leg injection flow, these valves must be closed to block any back flow through the normal spray line into the RCS cold legs.

**Justification**

It is impracticable to full stroke close exercise these valves during operation as it would have an immediate negative effect on RCS pressure. The increased spray flow would condense part of the steam bubble inside the pressurizer, resulting in a rapid drop in pressurizer pressure, resulting in a rapid drop in RCS pressure, resulting in a plant trip.

**Alternative Frequency**

These subject valves shall be full-stroke exercised to the closed position during cold shutdown per ISTC-3521(c).



ATTACHMENT 3  
**CS-02 Reactor Coolant System Vents**

<u>Valve Number</u>	<u>System</u>	<u>Class</u>	<u>Category</u>	<u>Unit</u>
1-V1441	RCS	2	B	1
1-V1442	RCS	2	B	1
1-V1443	RCS	2	B	1
1-V1444	RCS	2	B	1
1-V1445	RCS	2	B	1
1-V1446	RCS	2	B	1
1-V1449	RCS	2	B	1
2-V1460	RCS	2	B	2
2-V1461	RCS	2	B	2
2-V1462	RCS	2	B	2
2-V1463	RCS	2	B	2
2-V1464	RCS	2	B	2
2-V1465	RCS	2	B	2
2-V1466	RCS	2	B	2

**Function**

These globe valves are the Reactor Coolant Gas Vent Valves. This normally closed (key locked) solenoid operated valve must open to vent non-condensable gases trapped in the reactor vessel head/pressurizer to either the quench tank or the containment atmosphere during post accident conditions when large quantities of gases may collect in these high points. During normal plant operation, the valve is maintained closed to prevent inadvertent operation of the system.

**Justification**

It is impracticable to exercise these valves closed during normal power operations. Stroking these valve during normal operation would result in not only an increase in the leakage rate from the RCS to that levels not allowable in Technical Specifications, but due what would be a high dP across the valve, would result in a higher probability of the valve sticking open, which would result in even greater leakage from the RCS and result in the violation of Technical Specification 3.4.15 ( Unit 1) and Technical Specification 3.4.10 (Unit 2), which requires that these valves be closed during modes 1 through 4. It

ATTACHMENT 3

is therefore impractical to stroke these valves which are required by Technical Specifications to be locked closed during Modes 1 through 4.

**Alternative Frequency**

These subject valves shall be full-stroke exercised to during cold shutdown per ISTC-3521(c).

ATTACHMENT 3

**CS-03 Auxiliary Pressurizer Spray Valves**

<u>Valve Number</u>	<u>System</u>	<u>Class</u>	<u>Category</u>	<u>Unit</u>
1-SE-02-3	CVCS	1	B	1
1-SE-02-4	CVCS	1	B	1
2-SE-02-3	CVCS	1	B	2
2-SE-02-4	CVCS	1	B	2

**Function**

These normally locked closed (key switch) solenoid operated globe valves are the Aux Pressurizer Spray Isolation Valve. These valves must open by remote manual operation to provide a flow path from the charging system to the pressurizer. This function provides an auxiliary flow path to cool and depressurize the pressurizer. These valves must also open by remote manual operation to provide an alternate hot leg injection flow path from the HPSI pumps to the pressurizer during long term post accident cooling

**Justification**

It is impracticable to exercise these valves open or closed during normal power operations. Opening either one of the units valves (or failure in the open position) during plant operation would result in an undesirable RCS pressure transient that result in a plant trip. In addition to the immediate pressure transient consequences, flow through these valves would result in subjecting the pressurizer lines and spray nozzles to an thermal shock.

**Alternative Frequency**

These subject valves shall be full-stroke exercised during cold shutdown per ISTC-3521(c).

ATTACHMENT 3

**CS-04 Letdown Line Isolation Valves**

<b><u>Valve Number</u></b>	<b><u>System</u></b>	<b><u>Class</u></b>	<b><u>Category</u></b>	<b><u>Unit</u></b>
1-V2515	CVCS	1	A	1
1-V2516	CVCS	1	A	1
2-V2515	CVCS	1	B	2
2-V2516	CVCS	1	A	2
2-V2522	CVCS	2	A	2
2-V2523	CVCS	2	B	2

**Function**

Valves 1(2)-V2515/16 are air operated globe valves, located in the supply line to the Regenerative Heat Exchanger from the RCS. These valves are required to close upon receipt of either a CIS or SIAS signal and function as containment isolation valves. (except for 2-V2515, which only closes on an SIAS and does not function as a CIV)

Valve 2-V2522 is the Unit 2 Letdown Containment Isolation Valve, an air operated globe valve and closes on a CIS signal.

Valve 2-V2523 is the Unit 2 Charging Header Isolation Valve, an air operated gate valve, through which charging flow passes on its way back to the RCS.

**Justification**

It is impracticable to exercise these valves open or closed during normal power operations. Stroke time testing any of these valve, which would involve the closure of the valve during operation would result in either the removal of charging into the RCS, or the cessation of letdown flow, resulting in pressurizer level transients that could result in a potential plant trip and shutdown.

In addition to pressurizer level transients, closure of 2-V2523 has the potential of causing damage to the operating charging pump by dead heading the pump and lifting it's relief valve.

**Alternative Frequency**

These subject valves shall be full-stroke exercised during cold shutdown per ISTC-3521(c).

ATTACHMENT 3

**CS-05 Volume Control Tank Outlet Valve**

<b><u>Valve Number</u></b>	<b><u>System</u></b>	<b><u>Class</u></b>	<b><u>Category</u></b>	<b><u>Unit</u></b>
1-V2501	CVCS	2	B	1
2-V2501	CVCS	2	B	2

**Function**

Valves 1(2)-V2501 are the Unit 1 and 2 Volume Control Tank (VCT) Discharge Isolation Gate Valves. These valve remain open during power operation, providing a suction flowpath from the VCT to the charging pump suction. These valves, along with 1(2)V2525, close upon receipt of a SIAS to prevent diversion of flow from the BAM Tanks to the charging pump suction..

**Justification**

It is impracticable to exercise these valves open or closed during normal power operations. Closing this valve during power operation would isolate the VCT from the charging pump suction header and potentially damage any operating charging pump. In addition, loss of suction flow to a charging pump would result in loss of charging flow, which would then be accompanied by a pressurizer level transient resulting in the potential of a plant trip.

**Alternative Frequency**

These subject valves shall be full-stroke exercised during cold shutdown per ISTC-3521(c).

ATTACHMENT 3

**CS-06 RCP Seal Water Return Valves**

<b><u>Valve Number</u></b>	<b><u>System</u></b>	<b><u>Class</u></b>	<b><u>Category</u></b>	<b><u>Unit</u></b>
1-SE-01-1	CVCS	2	A	1
1-V2505	CVCS	2	A	1
2-V2505	CVCS	2	A	2
2-V2524	CVCS	2	A	2

**Function**

These above reference valves are either air operated gate or globe valves in the Reactor Coolant Pump (RCP) seal return line. These valve close upon a CIS.

**Justification**

It is impracticable to exercise these valves closed during normal power operations. The closure of any of these valves during power operation, which would be during RCP operation, would remove RCP seal flow, resulting in damage to the pumps seal package. Pump seal failure would result in immediate plant shutdown.

**Alternative Frequency**

These subject valves shall be full-stroke exercised during cold shutdown, when RCPs are secured per ISTC-3521(c).

ATTACHMENT 3

**CS-07 SI Pump Discharge Check Valves**

<u>Valve Number</u>	<u>System</u>	<u>Class</u>	<u>Category</u>	<u>Unit</u>
1-V3659	SI	2	B	1
1-V3660	SI	2	B	1

**Function**

These motor operated valves must remain open to provide a flowpath for minimum flow requirements for the HPSI and LPSI pumps. These valves must also close so as to isolate the min flow path of the HPSI and LPSI Pumps to the RWT following receipt of a recirculation actuation signal (RAS).

**Justification**

It is impracticable to exercise these valves closed during normal power operations. Closure of either of these two valves during Modes 1-4 would result in rendering all the HPSI and LPSI pumps inoperable, having removed their recirculation path back to the RWT. Without a pump min flow recirculation path, operation of either class of pump could result in damage to the pump due to loss of cooling flow. As a result, it is undesirable to stroke time test these valves in any other condition then when the associated pumps are OOS, to prevent potential damage to the pump.

**Alternative Frequency**

These subject valves shall be full-stroke exercised during cold shutdown, when neither the LPSI or HPSI pumps are capable of automatic starting per ISTC-3521(c).

ATTACHMENT 3

**CS-08 Shutdown Cooling Suction RCS Isolation Valves**

<u>Valve Number</u>	<u>System</u>	<u>Class</u>	<u>Category</u>	<u>Unit</u>
1-V3480	SI	1	A	1
1-V3481	SI	1	A	1
1-V3651	SI	1	A	1
1-V3652	SI	1	A	1
2-V3480	SI	1	A	2
2-V3481	SI	1	A	2
2-V3651	SI	1	A	2
2-V3652	SI	1	A	2

**Function**

These motor operated gate valves are the shutdown cooling suction isolation valves. These valves must open to provide a suction flowpath from the RCS for shutdown cooling and must open to provide a flowpath following a LOCA for continued cold leg and potential hot leg injection. These valves must also close to provide a Pressure Isolation Valve (PIV) function between the RCS and the shutdown cooling system.

**Justification**

It is impracticable to exercise these valves open or closed (full or partial) during normal power operations since opening the valves places the plant in an undesirable configuration.

These valves are provided with electrical interlocks that prevent opening during reactor power operation, when RCS pressure exceeds 267 psia (276 psia for Unit 2). If the interlocks were to be defeated during normal operation these valves would be subjected to a large differential pressure (in excess of 2000 psid). At this differential pressure the valve operators are incapable of opening the valves. Then even if they could be opened at these higher differential pressure, the resultant stroking of the valve could result in damage to their seating surfaces. For these reasons exercising these valves in any plant condition other than cold shutdown is impractical.

**Alternative Frequency**

These valves will be exercised open and closed on a Cold Shutdown frequency during conditions which allow for an adequate test to be performed per ISTC-3521(c).



ATTACHMENT 3

**CS-09 Main Steam Isolation Valves**

<b><u>Valve Number</u></b>	<b><u>System</u></b>	<b><u>Class</u></b>	<b><u>Category</u></b>	<b><u>Unit</u></b>
1-HCV-08-1A	MS	2	B/C	1
1-HCV-08-1B	MS	2	B/C	1
2-HCV-08-1A	MS	2	B	2
2-HCV-08-1B	MS	2	B	2

**Function**

These valves on Unit 1 are hydraulic / pneumatic operated power check valves, and on Unit two are air operated globe valves. These valve are open to provide a flow path for steam from the steam generators to the turbine. This valve must close to prevent the uncontrolled blowdown of the associated steam generator in the event of a main steam line break, and to prevent the release of radioactive material in the event of a Steam Generator Tube Rupture.

**Justification**

It is impracticable to exercise these valves closed during normal power operations since closing these valves places the plant in an undesirable configuration.

Closing these valves for testing during normal power operations would interrupt steam flow from the Steam Generator to the main steam/turbine systems and result in a severe transient. Partial stroke exercising these valves is also impracticable since even a part-stroke exercise increases the risk of a valve closure when the unit is generating power.

**Alternative Frequency**

These valves will be exercised closed on a Cold Shutdown frequency during conditions which allow for an adequate test to be performed per ISTC-3521(c).

ATTACHMENT 3

**CS-10 Main Steam Isolation Valve Bypass Valves**

<u>Valve Number</u>	<u>System</u>	<u>Class</u>	<u>Category</u>	<u>Unit</u>
2-MV-08-1A	MS	2	B	2
2-MV-08-1B	MS	2	B	2

**Function**

These motor operated globe valves are the Main Steam Isolation Valve Bypass Valves. These valve are opened during start up to provide steam downstream of the MSIV's to warm the lines. These valves are closed to provide pressure boundary integrity, containment integrity and provide isolation of the affected steam generator following a SGTR.

**Justification**

It is impracticable to exercise these valves closed during normal power operations since opening the valves places the plant in an undesirable configuration.

These Unit 2 valves, while installed in an orientation that ensures that they will close on an MSIS can not be assured to close against reverse steam flow. As a result both physical and administrative controls have been put in place so that during normal plant operation, the bypass valves are closed and the control circuit defeat switches are in the DEFEAT position with the key removed.

The operating criteria and interlocks prevent opening either of these valves whenever the MSIV in the other steam line are open. Thus during normal plant operation these valves cannot be cycled.

**Alternative Frequency**

These valves will be exercised closed on a Cold Shutdown frequency during conditions which allow for an adequate test to be performed per ISTC-3521(c).

ATTACHMENT 3

**CS-11 Main Feedwater Pump Isolation Valves**

<u>Valve Number</u>	<u>System</u>	<u>Class</u>	<u>Category</u>	<u>Unit</u>
1-MV-09-01	FW	NC	B	1
1-MV-09-02	FW	NC	B	1

**Function**

These motor driven gate valves are the Main Feedwater Pump Discharge Isolation Valves. These valves close upon receipt of either a Safety Injection Actuation Signal (SIAS) or Main Steam Isolation Signal (MSIS) to minimize the amount of water that may be injected into a faulted Steam Generator.

**Justification**

It is impracticable to exercise these valves closed during normal power operations since exercising these valves may result in a plant transient and subsequent reactor trip.

Exercising these valves closed during normal power operations requires isolating normal feedwater flow to the Steam Generator. This testing could result in a severe transient (i.e. level) in the associated Steam Generator and subsequent trip or the reactor. Partial stroke exercising these valves is also impracticable since even a part-stroke exercise increases the risk of a valve closure when the unit is generating power.

**Alternative Frequency**

These valves will be exercised to their safety related positions on a Cold Shutdown frequency during conditions which allow for an adequate test to be performed per ISTC-3521(c).

ATTACHMENT 3

**CS-12 Main Feedwater Isolation Valves**

<b><u>Valve Number</u></b>	<b><u>System</u></b>	<b><u>Class</u></b>	<b><u>Category</u></b>	<b><u>Unit</u></b>
1-HCV-09-7	FW	2	B	1
1-HCV-09-8	FW	2	B	1
2-HCV-09-1A	FW	2	B	2
2-HCV-09-1B	FW	2	B	2
2-HCV-09-2A	FW	2	B	2
2-HCV-09-2B	FW	2	B	2

**Function**

These gate valves are the units Main Feedwater Isolation Valves. The Unit 1 pneumatically operated valves close to isolate main feedwater flow from the generator upon both an Safety Injection Isolation Signal (SIAS) and Main Steam Isolation Signal (MSIS). The Unit 2 hydraulic-pneumatically operated valves close to isolate main feedwater flow from the generator upon both a MSIS and an Aux Feedwater Actuation Signal (AFAS).

**Justification**

It is impracticable to exercise these valves closed during normal power operations since exercising these valves may result in a plant transient and subsequent reactor trip.

Exercising these valves closed during normal power operations requires isolating normal feedwater flow to the Steam Generator. This testing could result in a severe transient (i.e. level) in the associated Steam Generator and subsequent trip or the reactor. Partial stroke exercising these valves is also impracticable since even a part-stroke exercise increases the risk of a valve closure when the unit is generating power.

**Alternative Frequency**

These valves will be exercised closed on a Cold Shutdown frequency during conditions which allow for an adequate test to be performed per ISTC-3521(c).

ATTACHMENT 3

**CS-13 RCP Cooling Water Supply / Return Isolation Valves**

<b><u>Valve Number</u></b>	<b><u>System</u></b>	<b><u>Class</u></b>	<b><u>Category</u></b>	<b><u>Unit</u></b>
1-HCV-14-1	CCW	2	A	1
1-HCV-14-2	CCW	2	A	1
1-HCV-14-6	CCW	2	A	1
1-HCV-14-7	CCW	2	A	1
2-HCV-14-1	CCW	2	A	2
2-HCV-14-2	CCW	2	A	2
2-HCV-14-6	CCW	2	A	2
2-HCV-14-7	CCW	2	A	2

**Function**

These power operated butterfly valves are the RCP Cooling Water Containment Isolation Valves. Flow through these valves provides cooling for both the RCPs and the Control Rod Drive (CRD) motors. These valves close so as to provide containment isolation.

**Justification**

It is impracticable to exercise these valves during normal power operations since opening the valves places the plant in an undesirable configuration.

These valves are required to remain open to ensure a continued supply of cooling water to both the reactor coolant pump and the control rod drives. Closing any of these valves during plant operation could result in severe RCP and CRD damage leading to plant operation in a potentially unsafe mode and a subsequent plant shutdown.

**Alternative Frequency**

These valves will be exercised closed on a Cold Shutdown frequency during conditions which allow for an adequate test to be performed per ISTC-3521(c).

ATTACHMENT 3  
CS-14 SIT Vent Valves

<u>Valve Number</u>	<u>System</u>	<u>Class</u>	<u>Category</u>	<u>Unit</u>
2-V3733	SI	2	B	2
2-V3734	SI	2	B	2
2-V3735	SI	2	B	2
2-V3736	SI	2	B	2
2-V3737	SI	2	B	2
2-V3738	SI	2	B	2
2-V3739	SI	2	B	2
2-V3740	SI	2	B	2

**Function**

These globe valves are the Safety Injection Tank (SIT) Vent valves. These valves must open to vent the SIT in the event the SIT outlet MOV cannot be closed to isolate the SIT from the RCS during plant cooldown. These valves must also remain closed to maintain Safety Injection Tank nitrogen pressure during Modes 1-3.

**Justification**

It is impracticable to exercise these valves during normal power operations since the act of testing this valve in would result in placing the plant in an undesirable configuration.

Stroking these valves during Modes 1-3 would result in venting the pressurized nitrogen cover gas from the SIT's, possibility reducing the pressure to below Technical Specification limits, potentially resulting in the unnecessary shutdown of the plant. It is for that reason that these valves are normally locked closed with their fuses pulled.

**Alternative Frequency**

These valve will be exercised open and closed on a Cold Shutdown frequency during conditions which allow for an adequate test to be performed per ISTC-3521(c).

ATTACHMENT 3

**CS-15 Primary Containment Instrument Air Supply**

<b><u>Valve Number</u></b>	<b><u>System</u></b>	<b><u>Class</u></b>	<b><u>Category</u></b>	<b><u>Unit</u></b>
1-MV-18-1	IA	2	A	1
2-HCV-18-1	IA	2	A	2

**Function**

The Instrument Air Containment Isolation Valves provide flow paths for instrument air into containment, and must close to provide containment isolation.

**Justification**

It is impracticable to exercise these valves during normal power operations since the act of testing them would result in placing the plant in an undesirable configuration.

Closing either of these valves isolates operating air to critical components in the respective containment building including the pressurizer spray and CVCS letdown isolation valves and could cause severe plant transients, RCP damage and a plant trip. The Unit 2 RCP cooling water supply and return valves would also be affected by isolating HCV-18-1. Failure of these valves in the closed position would cause a plant shutdown and RCP damage.

**Alternative Frequency**

These valves will be exercised open and closed on a Cold Shutdown frequency during conditions which allow for an adequate test to be performed per ISTC-3521(c).

ATTACHMENT 3

**CS-16 Unit 2 Containment Purge Valves**

<b><u>Valve Number</u></b>	<b><u>System</u></b>	<b><u>Class</u></b>	<b><u>Category</u></b>	<b><u>Unit</u></b>
2-FCV-25-1	HVAC	2	B	2
2-FCV-25-2	HVAC	2	A	2
2-FCV-25-3	HVAC	2	A	2
2-FCV-25-4	HVAC	2	A	2
2-FCV-25-5	HVAC	2	A	2
2-FCV-25-6	HVAC	2	B	2

**Function**

These butterfly valves are the Containment Purge Isolation Valves. These valves provide a flow path for the introduction of and exhaust of air from the containment, and must close to provide containment isolation.

**Justification**

It is impracticable to exercise these valves during normal power operations since the act of testing this valve in would result in placing the plant in an undesirable configuration.

These valves are required by Technical Specification 3.6.1.7 to be maintained in the closed position when the plant is operating in Modes 1, 2, 3 or 4. Stroking these valves while in either Modes 1, 2, 3 or 4 would result in the plant entering in an Action statement which is not the intent of the IST Program.

**Alternative Frequency**

These valve will be exercised open and closed on a Cold Shutdown frequency during conditions which allow for an adequate test to be performed per ISTC-3521(c).



ATTACHMENT 4

REFUEL OUTAGE JUSTIFICATION

No Refuel Outage Justification Was Require

ATTACHMENT 5

PLANT TECHNICAL POSITIONS

Technical Position No.	Description
TP-01	Bi-directional Testing of Check Valves with Non Safety Positions
TP-02	Passive Valves without Test Requirements
TP-03	Fail Safe Testing of Valves
TP-04	IST Test Frequency Grace
TP-05	Check Valves in Regular Use
TP-06	Categorization of IST Pumps (Group A or B)
TP-07	Check Valve Condition Monitoring
TP-08	Thermal Relief Valves
TP-09	Classification of Skid Mounted Components
TP-10	Testing of Containment Purge Valves
TP-11	Testing of Power Operated Valves with Both Active and Passive Safety Functions
TP-12	Valve Position Indication Verification Testing

ATTACHMENT 5

**TP-01 BI-DIRECTIONAL TESTING OF CHECK VALVES  
WITH NON-SAFETY POSITIONS**

**1.0 Purpose**

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

**2.0 Applicability**

This Technical Position is applicable to those valves which are included in the Inservice Testing Program that are required to be exercised tested in their non-safety related direction of flow. This position applies to those check valves required to be tested in accordance with Subsection ISTC (ASME OM Code 2004 Edition through 2006 Addenda) and Appendix II. This Technical Position does not apply to testing of the safety function (direction) of check valves included in the Inservice Testing Program.

**3.0 Background**

The ASME OM Code 2004 through 2006 Addenda Section ISTC-3550, "Valves in Regular Use," states:

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

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

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

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

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

"Check valves that have a safety function in only the close direction shall be exercised by initiating flow and observing that the obturator has traveled [to] at least the partially open position 3 and verify that on cessation or reversal of flow, the obturator has traveled to the seat."

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“<sup>3</sup> The partially open position should correspond to the normal or expected system flow.”

Normal and/or expected system flow may vary with plant configuration and alignment. St. Lucie Operations staff is trained in recognizing normal plant conditions. For check valves that have a non-safety related function in the open position, Operator judgment has been deemed acceptable in determining whether or not the normal or expected flow rates for plant operation has been obtained. For check valves that have a non-safety related function in the closed position, Operator judgment is also deemed acceptable in determining whether or not flow has subsidence has occurred resulting in obturator travel to the closed position.

### 4.0 Position

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

1. An appropriate means shall be determined which establishes the method for determining the open/closed non-safety function of the check valve during normal operations. The position determination may be by direct indicator, or by other positive means such as changes in system pressure, flow rate, level, temperature, seat leakage, etc. This determination shall be documented in the respective Condition Monitoring Plan for the specific check valve group. For check valves included in the Inservice Testing Program and not included in the Condition Monitoring Plan, this determination shall be documented in the IST Bases Document for the specific check valve group.
2. Observation and analysis of plant processes that a check valve is satisfying its non-safety direction function may be used. For an example, consider a check valve that has a safety function only in the closed direction and normally provides a flow path to maintain plant operations. If this check valve does not open to pass flow when required, an alarm or indication would identify a problem to the operator. The operator would respond by taking the appropriate actions. A Condition Report would then be generated for the abnormal plant condition which would identify the check valve failure.
3. Observation and analysis of plant logs and other records may be an acceptable method for verifying a check valves non-safety direction function verification during normal plant operations.

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

## ATTACHMENT 5

requires a Quality Record in the form of a surveillance test. Records as indicated above in 1 through 3 are satisfactory for the non-safety direction testing. A Condition report shall be generated for any issues regarding check valve operability.

### **5.0 Justification**

This Technical Position establishes the acceptability of the methods used in determining the ability of a valve to satisfy its non-safety function. Through normal plant system operation and Operator actions, a valves non-safety function is verified through either observation or analysis of plant records and logs. Additionally, the recording of parameters which demonstrate valve position will take place at a frequency to meet the frequency requirements of ISTC-3510. These actions collectively demonstrate the non-safety position of Inservice Testing Program check valves in regular use as required by ISTC-3550.

ATTACHMENT 5

**TP-02 PASSIVE VALVES WITHOUT TEST REQUIREMENTS**

**1.0 Purpose**

The purpose of this Technical Position is to establish the plant position for valves which perform a passive safety function for which there is no testing required in accordance with ISTC.

**2.0 Applicability**

This Technical Position is applicable to valves that perform a passive function in accordance with ISTA-2000 and do not have inservice testing requirements per Table ISTC-3500-1. This position is typical of Category B, passive valves that do not have position indication.

‘An example is a manual valve which must remain in its normal position during an accident, to perform its intended function.’

Typically, manual valves that perform a safety function are locked in their safety position and administratively controlled by St. Lucie site procedures. These valves would be considered passive. If they do not have remote position indicating systems and are categorized as B, they would not be subjected to any test requirements in accordance with Table ISTC-3500-1.

**3.0 Position**

The St. Lucie Inservice Testing Program, Valve Tables - Attachment 7, will not list valves that meet the following criteria.

- The valve is categorized B (seat leakage in the closed position is inconsequential for fulfillment of the valves' required function(s)) in accordance with ISTC-1300.
- The valve is considered passive (valve maintains obturator position and is not required to change obturator position to accomplish the required function(s)) in accordance with ISTA-2000.
- The valve does not have a remote position indicating system which detects and indicates valve position.

**4.0 Justification**

Valves that meet this position will not be listed in the St. Lucie Inservice Testing Program, Valve Tables – Attachment 7, however, the basis for categorization and consideration of active/passive functions shall be documented in the IST Program Basis Document.

ATTACHMENT 5

**TP-03 FAIL SAFE TESTING OF VALVES**

**1.0 Purpose**

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

**2.0 Applicability**

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

**3.0 Background**

The ASME OM Code 2004 through 2006 Addenda Section ISTC-3560 requires;

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

Section ISTC-3510 states;

“Active Category A, Category B, and Category C check valves shall exercised nominally every 3 months...”

**4.0 Position**

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

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

**5.0 Justification**

Fail Safe Testing tests the ability of the fail safe mechanism of the valves to go to its fail safe position. Whether or not the actuation of this fail safe mechanism is due to Operator Action or failure of either the valves air or electric power source, the resultant action of the valve will be the same. Therefore, the verification of a valve's fail safe ability can be taken credit for with the performance of either a stroke time exercising or position indication test.

ATTACHMENT 5

**TP-04 IST TEST FREQUENCY GRACE**

**1.0 Purpose**

The purpose of this Technical Position is to recognize St. Lucie's use of ASME Code Case OMN-20 as allowed by 10 CFR 50.55a(b)(3)(x).

**2.0 Applicability**

This Technical Position is applicable to all Inservice Testing frequencies.

**3.0 Background**

Prior to Technical Specifications (TS) Amendments 238 and 189, the Inservice Testing Program was addressed in the Administrative Controls section under

Section 6.8.4.i. In this section, testing frequencies were defined and linked to TS 4.0.2 and TS 4.0.3. TS 4.0.2 allowed for a 25% grace to be applied to one's frequency requirement, and TS 4.0.3 addressed the actions to be taken in the event of a "missed surveillance".

In 2012, the NRC issued RIS 2012-10 and EGM 2012-001 informing utilities that they will no longer be able to apply their equivalent TS 4.0.2 and TS 4.0.3 to their IST surveillance test frequencies if IST is defined in other than Section 4 of their Technical Specifications. This was a consequence from numerous utilities having implemented Improved Technical Specifications (ITS), which relocated the description of IST from typically TS 4.0.5 to some place in TS Sections 5 or 6. Per the NRC legal department, the removal of IST from Section 4 of the Technical Specifications broke the applicability of TS 4.0.2 and TS 4.0.3 to IST.

The interim solution to this revelation was for ASME to draft and approve ASME Code Case OMN-20, which defined IST test frequency grace outside of Technical Specifications. Once approved, utilities were able to request relief to adopt ASME Code Case OMN-20, which St. Lucie requested via the corporate NextEra relief request, submitted to the NRC on July 28, 2016 [L-2016-137] and approved on December 15, 2016. [ML16330A118] St. Lucie referenced this relief request in their Program Plan as VR-01.

Following the approval this corporate relief request adopting ASME OM Code Case OMN-20, St. Lucie processed a change to their Unit 1 Technical Specifications in Amendment 238, and in their Unit 2 Technical Specifications in Amendment 189, removing Inservice Testing from the Administrative Controls Section 6.8.4, and adding a definition for the Inservice Testing Program, into Section 1.0.

On July 18, 2017, a revision of 10 CFR 50.55a was published in the Federal Register. In this revision the NRC incorporated by reference, ASME Code Case OMN-20, allowing it to be utilized by the utility without requesting specific relief. [10 CFR 50.55a(b)(3)(x)]



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### 4.0 Position

St. Lucie will utilize and implement the requirements/allowances of ASME OM Code Case OMN-20, as allowed by 10 CFR 50.55a.

Adoption of ASME OM Code Case OMN-20 allows IST surveillance frequencies up to and including 2 years to extend by up to 25 percent. The frequency extension is to facilitate test scheduling and considers plant operating conditions that may not be suitable for performance of the required testing (e.g., performance of the test would cause an unacceptable increase in the plant risk profile due to transient conditions or other ongoing surveillance, test or maintenance activities). Period extensions are not intended to be used repeatedly merely as an operational convenience to extend test intervals beyond those specified.

For IST surveillance frequencies greater than 2 years, ASME OM Code Case OMN-20 allows an extension of up to 6 months. Just as for frequencies up to and including 2 years, the frequency extension is to facilitate test scheduling and considers plant operating conditions that may not be suitable for performance of the required testing.

Frequency extensions may also be applied to accelerated test frequencies (e.g., pumps in alert range) and other fewer than 2 year frequencies.

### 5.0 Justification

With the incorporation by reference of ASME OM Code Case OMN-20 into 10 CFR 50.55a, additional permission from the regulator is no longer necessary for the site to utilize this Code Case.

ATTACHMENT 5

**TP-05 CHECK VALVES IN REGULAR USE**

**1.0 Purpose**

The purpose of this Technical Position is to establish the plant position for check valves that are in regular use during normal plant operations.

**2.0 Applicability**

This Technical Position is applicable to check valves that are capable of being demonstrated to be open during routine operations.

**3.0 Background**

The ASME OM Code 2004 through 2006 Addenda Section ISTC-3550, "Valves in Regular Use", states:

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

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

Normal and/or expected system flow may vary with plant configuration and alignment. The open "safety function" of a check valve typically requires a specified design accident flow rate. For these subject valves, the normal system flow is above the design accident flow rates. Since the St. Lucie Operations staff is trained so as to be able to recognize normal plant conditions, Operator judgment has been deemed acceptable for the purpose of determining check valve open demonstration by observing either normal or expected flow rates for the plant operating condition.

**4.0 Position**

St. Lucie will verify the open position of these subject check valves by observing plant logs, computer systems, strip chart recorders, etc., during normal plant operations. The open/closed safety function shall be recorded at a frequency required by ISTC-3510, nominally every 3 months, (with exceptions as provided), in plant records such as St. Lucie Operating Logs, Electronic Rounds, chart recorders, automated data loggers, etc.

**5.0 Justification**

Normal plant systems operation and operator actions provide for the observations and analysis that these subject valves are capable of satisfying their open safety function. Additionally, the recording of parameters which

#### ATTACHMENT 5

demonstrate valve position will take place at a frequency in accordance with ISTC-3510. These actions collectively demonstrate the open safety function of Inservice Testing Program check valves in regular use as required by ISTC-3550.

ATTACHMENT 5

**TP-06 CATEGORIZATION OF IST PUMPS (GROUP A OR B)**

**1.0 Position**

The St. Lucie Plant has categorized the pumps which are required to be included in the Inservice Testing Program<sup>a</sup> as either Group A and/or B in accordance with the requirements of ISTB-2004/2006a and St. Lucie Relief Request PR-04.

Group A pumps are pumps that are operated continuously or routinely during normal operation, cold shutdown, or refueling operations. The following pumps are categorized as Group A at the St. Lucie Nuclear Plant:

Pump EPN	Class	Group	Type	Function
CCW PP 1A	3	A	Centrifugal	Component Cooling Water
CCW PP 1B	3	A	Centrifugal	Component Cooling Water
CCW PP 1C	3	A	Centrifugal	Component Cooling Water
CCW PP 2A	3	A	Centrifugal	Component Cooling Water
CCW PP 2B	3	A	Centrifugal	Component Cooling Water
CCW PP 2C	3	A	Centrifugal	Component Cooling Water
BAM PP 1A	2	A	Centrifugal	Boric Acid Makeup
BAM PP 1B	2	A	Centrifugal	Boric Acid Makeup
BAM PP 2A	2	A	Centrifugal	Boric Acid Makeup
BAM PP 2B	2	A	Centrifugal	Boric Acid Makeup
CHRG PP 1A	2	A	Positive Disp	Charging
CHRG PP 1B	2	A	Positive Disp	Charging
CHRG PP 1C	2	A	Positive Disp	Charging
CHRG PP 2A	2	A	Positive Disp	Charging
CHRG PP 2B	2	A	Positive Disp	Charging
CHRG PP 2C	2	A	Positive Disp	Charging
ICW PP 1A	3	A	Vert Line Shaft	Intake Cooling Water
ICW PP 1B	3	A	Vert Line Shaft	Intake Cooling Water
ICW PP 1C	3	A	Vert Line Shaft	Intake Cooling Water
ICW PP 2A	3	A	Vert Line Shaft	Intake Cooling Water
ICW PP 2B	3	A	Vert Line Shaft	Intake Cooling Water
ICW PP 2C	3	A	Vert Line Shaft	Intake Cooling Water

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<sup>a</sup> – Pumps classified as “Skid Mounted” per ISTB-1200(c) are not required to be tested discretely in accordance with ISTB, so are therefore not assigned a “Group”.

Group B pumps are those pumps in standby systems that are not operated routinely except for testing. The following pumps are categorized as Group B at the St. Lucie Plant:

Pump EPN	Class	Group	Type	Function
CNTMT SPR PP 1A	2	B	Centrifugal	Containment Spray
CNTMT SPR PP 1B	2	B	Centrifugal	Containment Spray
CNTMT SPR PP 2A	2	B	Centrifugal	Containment Spray
CNTMT SPR PP 2B	2	B	Centrifugal	Containment Spray
HYDRZN PP 2A	2	B	Positive Disp.	Hydrazine
HYDRZN PP 2B	2	B	Positive Disp.	Hydrazine
AFW PP 1A	3	B	Centrifugal	Aux Feed Water
AFW PP 1B	3	B	Centrifugal	Aux Feed Water
AFW PP 1C	3	B	Centrifugal	Aux Feed Water
AFW PP 2A	3	B	Centrifugal	Aux Feed Water
AFW PP 2B	3	B	Centrifugal	Aux Feed Water
AFW PP 2C	3	B	Centrifugal	Aux Feed Water
HPSI PP 1A	2	B	Centrifugal	High Press Safety Inj
HPSI PP 1B	2	B	Centrifugal	High Press Safety Inj
HPSI PP 2A	2	B	Centrifugal	High Press Safety Inj
HPSI PP 2B	2	B	Centrifugal	High Press Safety Inj

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ASME OM ISTB-1400(b) states in part that a pump that meets both Group A and Group B pump definitions shall be categorized as a Group A pump. Relief Request PR-04; however, provides for the treatment of the below pumps as both Group A and Group B, based upon the circumstances and evaluation provided with Relief Request PR-04.

Pump EPN	Class	Group	Type	Function
LPSI PP 1A	2	A/B	Centrifugal	Low Press Safety Inj
LPSI PP 1B	2	A/B	Centrifugal	Low Press Safety Inj
LPSI PP 2A	2	A/B	Centrifugal	Low Press Safety Inj
LPSI PP 2B	2	A/B	Centrifugal	Low Press Safety Inj

The following summarizes the Group A, B, and Comprehensive Pump Test requirements as specified by the ASME OM Code Subsection ISTB.

Group A Pump Tests – Group A tests are performed quarterly for each pump categorized as A. The following inservice test parameters are measured for each Group A pump test:

- Speed (if pump is variable speed)
- Differential Pressure
- Discharge Pressure, (for positive displacement pumps)
- Flow Rate
- Vibration

Group B Pump Tests – Group B tests are performed quarterly for each pump categorized as B. The following inservice test parameters are measured for each Group B pump test.

- Speed (if pump is variable speed)
- Differential Pressure<sup>(1)</sup>
- Flow Rate<sup>(1)</sup>

<sup>(1)</sup> For positive displacement pumps, only flow rate shall be measured or determined, for all other pumps, either differential pressure or flow rate shall be measured or determined.

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Comprehensive Pump Tests – Comprehensive pump tests are performed biennially for all pumps in the Inservice Testing Program. The following inservice test parameters are measured for each Comprehensive pump test:

- Speed (if pump is variable speed)
- Differential Pressure
- Discharge Pressure, (for positive displacement pumps)
- Flow Rate (The ISTB Design Flow for the comprehensive pump test shall be defined as the System's Accident Condition Flow for a single pump)
- Vibration

The following instrument accuracy requirements apply to each test type:

Parameter	Group A	Group B	Comprehensive
Pressure	+/- 2.0%	+/- 2.0%	+/- 0.5%
Flow Rate	+/- 2.0%	+/- 2.0%	+/- 2.0%
Speed	+/- 2.0%	+/- 2.0%	+/- 2.0%
Vibration	+/- 5.0%	+/- 5.0%	+/- 5.0%
Differential Pressure	+/- 2.0%	+/- 2.0%	+/- 0.5%

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**TP-07 CHECK VALVE CONDITION MONITORING**

**1.0 Purpose**

The purpose of this Technical Position is to document the St. Lucie Plant's position on establishing and implementing a Check Valve Condition Monitoring Program in accordance with mandatory Appendix II of the ASME OM Code 2004 Edition through 2006 Addenda. The Condition Monitoring Program specified in Appendix II provides certain flexibility in establishing test types, examinations, and preventive maintenance activities along with their associated intervals, when justified based on check valve performance and operating condition.

**2.0 Applicability**

This Technical Position is applicable to certain valves or groups of valves as permitted by ISTC-5222, Condition Monitoring Program.

**3.0 Background**

10 CFR 50.55a was revised 11/22/99 to endorse the ASME OMa-1995 Edition with 1996 Addenda with modifications. These modifications have been incorporated into the 2006 Addenda of the 2004 Edition of the ASME OM Code. This edition of the ASME OM Code has provisions to implement a check valve condition monitoring program for selected valves or groups of valves in accordance with mandatory Appendix II. St. Lucie's Inservice Testing Program for the 5<sup>th</sup> Ten-Year Interval has been developed in accordance with the ASME OM Code 2004 Edition through 2006 Addenda. This edition of the Code provides an alternative in Section ISTC-5222, Condition Monitoring Program, to the testing requirements of ISTC-3510, ISTC-3520, IST-3530, ISTC-3550 and ISTC-5221. This section specifies that the program shall be implemented in accordance with Appendix II, Check Valve Condition Monitoring Program.

**4.0 Position**

St. Lucie Plant will implement a Check Valve Condition Monitoring program for selected valves or groups of valves in accordance with ISTC-5222 and Appendix II. The following guidelines will be adhered to for administering this program. Additionally, if the Appendix II program is discontinued for a valve or group of valves, then the requirements of ISTC shall be implemented. [10 CFR 50.55a(b)(3)(iv)(D), i.e., the Fourth provision]

**1. Purpose**

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



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### 2. Scope

The St. Lucie Plant Check Valve Condition Monitoring Program will be applied to individual check valves or groups of check valves which are either candidates for improved performance or candidates which will be monitored for improved valve performance.

- A. Candidates for improved valve performance are those check valves which may exhibit one or more of the following attributes:
  - (1) The valve(s) exhibits an unusually high failure rate during inservice testing or operations;
  - (2) The valve(s) can not be exercised under normal operating conditions or during shutdown;
  - (3) The valve(s) exhibits unusual, abnormal, or unexpected behavior during exercising or operations.
- B. Candidates for monitoring for improved valve performance using optimization techniques, examination, and preventive maintenance activities are those check valves with documented acceptable performance that:
  - (1) Have had their performance improved under this program;
  - (2) Cannot be exercised or are not readily exercised during normal operating condition or during shutdown;
  - (3) Can only be disassembled and examined; or
  - (4) It is decided that all of the associated activities of the valve or group will be optimized.

### 3. Groupings

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

- A. Valves shall be of the same manufacturer, design, size, service media, materials of construction, and orientation.
- B. Maintenance and modification history shall be reviewed.
- C. Test history and results shall be reviewed.

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- D. System design shall be considered to determine potential flow instabilities, degree of disassembly, and the need for tolerance and dimensional measurements

### 4. Analysis

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

- A. Identify any common failure mode or corrective maintenance patterns.
- B. Analyze these common patterns to determine their significance and to identify potential failure mechanisms:
  - (1) Determine if certain preventive maintenance activities would mitigate the failure or maintenance patterns;
  - (2) Determine if certain condition monitoring activities are possible and effective in monitoring for these failure mechanisms;
  - (3) Determine if periodic disassembly and examination would be an effective method in monitoring for these failure mechanisms.
  - (4) Determine if the valve grouping is required to be changed.

### 5. Condition Monitoring Activities

Valve obturator movement during applicable test or examination activities shall be sufficient to determine the bidirectional functionality of the moving parts. A full open exercise test, or an open test to the position required to perform its intended function is not required for this assessment.

- A. Performance Improvement Activities

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- (1) If sufficient information is not available or the results of the analysis performed in 4 above are not conclusive, an interim period not to exceed two fuel cycles or 3 years, whichever is longer, [10 CFR 50.55a(b)(3)(iv)(B)] shall be established to determine the cause of the failure or maintenance patterns. The following activities shall be performed at sufficient intervals over the interim period.
  - a. Identify interim tests (e.g. nonintrusive) to assess the performance of the valve of group of valves.
  - b. Identify interim examinations to evaluate potential degradation mechanisms.
  - c. Identify other types of analysis to be performed which will assess check valve condition.
  - d. Identify which of these activities will be performed on each valve.
  - e. Identify the interval of each activity.
- (2) Identify attributes that will be trended. Trending and evaluation of existing data must be used as the bases to reduce or extend the time interval between tests or examinations.
- (3) Complete or revise the condition monitoring test plans to document the check valve program performance improvement activities and their associated frequencies.
- (4) Perform these activities at their assigned intervals until:
  - a. Sufficient information is obtained to permit an adequate analysis.
  - b. Until the end of the interim period (two fuel cycles or 3 years, whichever is longer). [10 CFR 50.55a(b)(3)(iv)(B)]
- (5) After performance, a review shall be performed for each trended attribute along with results for each activity to determine if changes to the program are required. If changes are required, the program shall be revised before the next performance of the activity.

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- (6) An evaluation shall be performed to support the determination that each individual valve is tested at a frequency which will support verification of the valve's ability to perform its intended function(s) over the entire test interval. [10 CFR 50.55a(b)(3)(iv)] In addition, the maximum interval between activities shall meet those requirements provided in Table 1.

B. Optimization of Condition Monitoring Activities

- (1) If sufficient information is available to assess the performance adequacy of the check valve or group, then the following activities shall be performed:
  - a. Identify appropriate preventive maintenance activities including the intervals that are required to maintain the continued acceptable performance of the check valve or group of check valves.
  - b. Identify the applicable examination activities including the interval that will be used to periodically assess the condition of each check valve or group of check valves.
  - c. Identify the applicable test activities including intervals that will be used to periodically verify the acceptable performance of each check valve or group of check valves.
  - d. Identify which of these activities will be performed on each valve in the group.
  - e. Identify the interval of each activity. Interval extensions shall be limited to one fuel cycle per extension. Intervals shall not exceed the period identified in 10 CFR 50.55a(b)(3)(iv), Table II- Maximum Intervals for Use When Applying Interval Extensions, which is reproduced at the end of this Technical Position. All valves in a group sampling plan must be tested or examined again, before the interval can be extended again, or until the maximum interval would be exceeded.
- (2) Identify attributes that will be trended. Trending and evaluation of existing data must be used to reduce or extend the time interval between tests or examinations.

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- (3) Revise the condition monitoring plans to document the optimized condition monitoring program activities and associated intervals for each activity.
- (4) Continue performance of these activities at their associated intervals.
- (5) Review the results of the performance of each activity to determine if changes to the optimized condition monitoring program are required. Changes to IST intervals must consider plant safety and be supported by trending and evaluating both generic and plant-specific performance data to ensure the component is capable of performing its intended function(s) over the entire interval.
- (6) An evaluation shall be performed to support the determination that each individual valve is tested at a frequency which will support verification of the valve's ability to perform its intended function(s) over the entire test interval. [10 CFR 50.55a(b)(3)(iv)] In addition, the maximum interval between activities shall meet those requirements provided in Table 1.

**6. Corrective Maintenance**

If corrective maintenance is performed on a check valve, the analysis used to formulate the basis of the condition-monitoring activities for that valve and its associated valve group shall be reviewed to determine if any changes are required.

**7. Documentation**

The condition monitoring program shall be documented in IST Manager or equivalent forms. The plan for each check valve or group of check valves shall be documented in the Condition Monitoring Tab and shall contain as a minimum the following information:

- A. The list of valves in each group including the group basis.
- B. Date the valve or group of valves was evaluated for inclusion or exclusion from the condition monitoring program.
- C. Safety function of valve or valve group.
- D. Analysis/justification which forms the basis for the program.

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- E. Identification of the failure or maintenance patterns for each valve
- F. Condition monitoring activities including the trended attributes and the bases for the associated intervals for each valve or valve group.

8. References

PSL-ENG-SEOS-08-063, "IST Check Valve Condition Monitoring Program"

Table 1 – MAXIMUM INTERVALS FOR USE WHEN APPLYING INTERVAL EXTENSIONS

Group size	Maximum interval between activities of member valves in the group (years)	Maximum interval between activities of each valve in the group (years)
≥ 4	4.5	16
3	4.5	12
2	6	12
1	Not Applicable	10

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**TP-08 THERMAL RELIEF VALVES**

**1.0 Purpose**

The purpose of this Technical Position is to establish the plant position on the method and frequency of testing of valves that can be classified as Thermal Relief Valves.

**2.0 Applicability**

This Technical Position is applicable to the following valves at St. Lucie.

Valve Number	System	Class	Category	Unit
1-SR-07276	FP	2	A/C	1
1-SR-07277	FP	2	A/C	1
1-SR-07278	W-MAN	N/C	C	1
1-SR-14-7A	CCW	3	C	1
1-SR-14-7B	CCW	3	C	1
1-SR-14-8A	CCW	3	C	1
1-SR-14-8B	CCW	3	C	1
1-SR-14-8C	CCW	3	C	1
1-SR-14-8D	CCW	3	C	1
1-V2315	CVCS	2	C	1
1-V2318	CVCS	2	C	1
1-V2321	CVCS	2	C	1
1-V3407	SI	3	C	1
1-V3412	SI	2	C	1
1-V3430	SI	2	C	1
1-V3431	SI	2	C	1
1-V3439	SI	2	C	1
2-SR-02123	CVCS	2	C	2
2-SR-03-1	SI	3	C	2
2-SR-03-2	SI	3	C	2
2-SR-07474	W-MAN	2	A/C	2
2-SR-07475	FP	2	A/C	2
2-SR-07476	FP	2	A/C	2

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Valve Number	System	Class	Category	Unit
2-SR-07477	W-MAN	4	N/A	2
2-SR14307	CCW	2	C	2
2-SR14318	CCW	2	C	2
2-SR14329	CCW	2	C	2
2-SR14342	CCW	2	C	2
2-SR14350	CCW	3	C	2
2-SR14359	CCW	3	C	2
2-SR14636	CCW	2	A/C	2
2-SR14637	CCW	2	A/C	2
2-SR14673	CCW	2	C	2
2-SR14676	CCW	2	C	2
2-SR14639	CCW	2	C	2
2-SR14679	CCW	2	C	2
2-SR-15925	MUW	NC	C	2
2-SR-17221	EDG-F	3	C	2
2-SR-17222	EDG-F	3	C	2
2-V2318	CVCS	2	C	2
2-V2321	CVCS	2	C	2
2-V2588	CVCS	2	C	2
2-V3407	SI	3	C	2
2-V3412	SI	2	C	2
2-V3430	SI	2	C	2
2-V3431	SI	2	C	2
2-V3439	SI	2	C	2
2-V3468	SI	2	C	2
2-V3483	SI	2	C	2
2-V3507	SI	2	C	2
2-V3513	SI	2	C	2
2-V3688	SI	2	C	2



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### 3.0 Background

When this technical position for thermal relief valves was first drafted, the position was based upon 10 CFR 50.55a(b) endorsement of Regulatory Guide 1.192, "Operation and Maintenance Code Case Acceptability, ASME OM Code," as issued on June 2003. This Regulatory Guide contains a list of ASME Code Cases, which either in full or in part, are allowed by the NRC to be used by licensees, without the submittal of a request for relief from the NRC. Table 1 of Regulatory Guide 1.192 contains a list of Code Cases that can be adopted by the utility without conditions or modifications, which includes Code Case OMN-2, Rev. 0, "Thermal Relief Valve Code Case," 1998 Edition.

Code Case OMN-2 states in part:

"It is the opinion of the Committee that in lieu of the requirements specified in ASME OM Code 1995, paragraphs I 1.3.5(a), (b), and (c) testing for Class 2 and Class 3 pressure relief devices whose only overpressure protection function is to protect isolated components from fluid expansion caused by changes in fluid temperature shall be performed once every ten years on each device unless performance data indicates that more frequent testing is needed to assure device function. In lieu of test, the Owner may replace these devices every ten years unless performance data indicates more frequent replacement is needed to assure device function."

However, in the current edition of the ASME Code 2004/2006a, Mandatory Appendix I, "Inservice Testing of Pressure Relief Devices in Light-Water Reactor Nuclear power Plants," Section I-1390 has been created which removes the need for OMN-2. This section states:

"Test shall be performed on all Class 2 and 3 relief devices used in thermal relief application every 10 years, unless performance data indicate more frequent testing is necessary. In lieu of tests the Owner may replace the relief devices at a frequency of every 10 years, unless performance data indicate more frequent replacement are necessary."

### 4.0 Position

St. Lucie Plant will treat those valves designated as thermal relief valves per the requirements of Section I-1390 in that they may be tested or replaced on a 10 year frequency unless performance data indicates more frequent replacement being necessary.

### 5.0 History

Thermal Relief Valves were addressed in Interval 3 in Generic Relief Request VR-23.

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**TP-09 CLASSIFICATION OF SKID MOUNTED COMPONENTS**

**1.0 Purpose**

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

**2.0 Background**

The ASME Code allows classification of some components as skid mounted when their satisfactory operation is demonstrated by the satisfactory performance of the associated major components. Testing of the major component is sufficient to satisfy Inservice Testing requirements for skid mounted components. In section 3.4 of NUREG-1482 Revision 2, the NRC supports the designation of components as skid mounted:

“The staff has determined that the testing of the major component is an acceptable means for verifying the operational readiness of the skid-mounted and component subassemblies if the licensee documents this approach in the IST Program. Licensees should consider and document the specific measurements and attributes of major component testing which relate to the assessment of skid-mounted component condition. In addition, various continuous and periodic observations of the major components (such as System Monitoring Walkdowns or Operator Logs) may also support assurance of skid-mounted component readiness. This is acceptable for both Code class components and non-Code class components tested and tracked by the IST Program.”

In the 1996a addenda to the ASME OM Code (endorsed by 10 CFR 50.55a in October 2000), the term skid-mounted was clarified by the addition of ISTA paragraph 1.7: ISTA 1.7 Definitions

Skid mounted components and component sub assemblies – components integral to or that support operation of major components, even though these components may not be located directly on the skid. In general, these components are supplied by the manufacturer of the major component. Examples include: diesel skid-mounted fuel oil pumps and valves, steam admission and trip throttle valves for high-pressure coolant injection or Auxiliary Feedwater turbine-driven pumps, and solenoid-operated valve provided to control the air-operated valve.

Circa 1998 this definition was further clarified and has not been further modified from what is now present in ISTA-2000 of the 2004/2006a Editions of the ASME OM Code, is as follows:

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Skid mounted pumps and valves – pumps and valves integral to or that support operation of major components, even though these components may not be located directly on the skid. In general, these pumps and valves are supplied by the manufacturer of the major component. Examples include:

1. diesel fuel oil pumps and valves;
2. steam admission and trip throttle valves for high-pressure coolant injection pumps;
3. steam admission and trip throttle valves for Auxiliary Feedwater turbine driven pumps;
4. solenoid-operated valves provided to control an air-operated valve.

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

### ISTB-1200(c) Exclusions

Skid-mounted pumps that are tested as part of the major component and are justified by the Owner to be adequately tested.

### ISTC-1200 Exemptions

Skid-mounted valves are excluded from this Subsection provided they are tested as part of the major component and are justified by the Owner to be adequately tested.

## 3.0 Position

The 2004/2006a ASME OM Code definition of skid mounted will be used for classification of components in the St. Lucie Inservice Testing Program. In addition, for a component to be considered skid mounted:

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

\* - as defined by the utility

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**4.0 Justification**

Recognition and classification of components as skid mounted eliminates the need for the redundant testing of the sub component(s) as the testing of major (parent) component satisfactory demonstrates operation of the “skid mounted” component(s).

**5.0 Resultant Discussion**

**Skid Mounted Pumps**

In recognition of this Technical Position on skid mounted components, pumps classified as Skid Mounted need not be classified as either Group A or Group B as the acceptable performance of the skid mounted pump is based upon the acceptable performance of the major component to which it gives support, not the manner in which it operators. The frequency at which this skid mounted pump’s ability to function in support of its major component will be verified quarterly, as a minimum. This frequency is chosen so as to not be greater than the minimum test frequency associated with an IST pump that is not classified as skid mounted.

If the frequency associated with the testing of the skid mounted pump is ever determined to be greater than quarterly, that evaluation/justification will be provided in that specific pump basis.

The following IST pumps have been classified as skid mounted;

Pump Name	Class	Type	Function
DOT 1A	3	Centrifugal	Diesel Fuel Oil Transfer
DOT 1B	3	Centrifugal	Diesel Fuel Oil Transfer
DOT 2A	3	Centrifugal	Diesel Fuel Oil Transfer
DOT 2B	3	Centrifugal	Diesel Fuel Oil Transfer
EDG EPP 1A1	3	Positive Disp	Diesel Fuel Elec Priming
EDG EPP 1A2	3	Positive Disp	Diesel Fuel Elec Priming
EDG EPP 1B1	3	Positive Disp	Diesel Fuel Elec Priming
EDG EPP 1B2	3	Positive Disp	Diesel Fuel Elec Priming
EDG EPP 2A1	3	Positive Disp	Diesel Fuel Elec Priming
EDG EPP 2A2	3	Positive Disp	Diesel Fuel Elec Priming

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Pump Name	Class	Type	Function
EDG EPP 2B1	3	Positive Disp	Diesel Fuel Elec Priming
EDG EPP 2B2	3	Positive Disp	Diesel Fuel Elec Priming
EDG SBLO AC 1A1	3	Positive Disp	Diesel Soak Back Lube Oil AC
EDG SBLO AC 1A2	3	Positive Disp	Diesel Soak Back Lube Oil AC
EDG SBLO AC 1B1	3	Positive Disp	Diesel Soak Back Lube Oil AC
EDG SBLO AC 1B2	3	Positive Disp	Diesel Soak Back Lube Oil AC
EDG SBLO AC 2A1	3	Positive Disp	Diesel Soak Back Lube Oil AC
EDG SBLO AC 2A2	3	Positive Disp	Diesel Soak Back Lube Oil AC
EDG SBLO AC 2B1	3	Positive Disp	Diesel Soak Back Lube Oil AC
EDG SBLO AC 2B2	3	Positive Disp	Diesel Soak Back Lube Oil AC
EDG SBLO DC 1A1	3	Positive Disp	Diesel Soak Back Lube Oil DC
EDG SBLO DC 1A2	3	Positive Disp	Diesel Soak Back Lube Oil DC
EDG SBLO DC 1B1	3	Positive Disp	Diesel Soak Back Lube Oil DC
EDG SBLO DC 1B2	3	Positive Disp	Diesel Soak Back Lube Oil DC
EDG SBLO DC 2A1	3	Positive Disp	Diesel Soak Back Lube Oil DC
EDG SBLO DC 2A2	3	Positive Disp	Diesel Soak Back Lube Oil DC
EDG SBLO DC 2B1	3	Positive Disp	Diesel Soak Back Lube Oil DC
EDG SBLO DC 2B2	3	Positive Disp	Diesel Soak Back Lube Oil DC
EDG TCLO AC 2A1	3	Positive Disp	Diesel Turbo Charger Lube Oil AC
EDG TCLO AC 2A2	3	Positive Disp	Diesel Turbo Charger Lube Oil AC
EDG TCLO AC 2B1	3	Positive Disp	Diesel Turbo Charger Lube Oil AC
EDG TCLO AC 2B2	3	Positive Disp	Diesel Turbo Charger Lube Oil AC
EDG TCLO DC 2A1	3	Positive Disp	Diesel Turbo Charger Lube Oil DC

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Pump Name	Class	Type	Function
EDG TCLO DC 2A2	3	Positive Disp	Diesel Turbo Charger Lube Oil DC
EDG TCLO DC 2B1	3	Positive Disp	Diesel Turbo Charger Lube Oil DC
EDG TCLO DC 2B2	3	Positive Disp	Diesel Turbo Charger Lube Oil DC

### Skid Mounted Valves

In recognition of this Technical Position on skid mounted components, only those parameters necessary for a specific valve to function in support of it's safety related major component need be considered when evaluating the ability of the major components test ability to verify the required function of the skid mounted valve. (e.g., If a skid mounted check valve has a non-safety related open function, the major component testing need not consider verification of the open non-safety function, as would have been required if the check valve were not classified as skid mounted.)

The frequency at which this skid mounted valves ability to function in support of its major component will be verified quarterly, as a minimum. This frequency is chosen so as to not be greater than the minimum test frequency associated with a non-skid mounted IST valve. If the frequency associated with the testing of a skid mounted valve is determined to be greater than quarterly, that evaluation/justification will be provided in that specific valves basis.

The following IST valves have been classified as skid mounted;

Valve Number	Class	Type	Function
1-FCV-59-1A1	3	Gate	1A EDG Starting Air Control Valve
1-FCV-59-1B1	3	Gate	1B EDG Starting Air Control Valve
1-FCV-59-2A1	3	Gate	1A EDG Starting Air Control Valve
1-FCV-59-2B1	3	Gate	1B EDG Starting Air Control Valve
1-FCV-59-3A1	3	Gate	1A EDG Starting Air Control Valve
1-FCV-59-3B1	3	Gate	1B EDG Starting Air Control Valve
1-FCV-59-4A1	3	Gate	1A EDG Starting Air Control Valve
1-FCV-59-4B1	3	Gate	1B EDG Starting Air Control Valve
1-MV-08-3	2	Gate	1C AFW Turbine Trip Throttle Valve

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Valve Number	Class	Type	Function
1-SE-08-1A1	NC	PLT	MSIV HCV-08-1A Closing Solenoid Valve
1-SE-08-1A2	NC	PLT	MSIV HCV-08-1A Closing Solenoid Valve
1-SE-08-1A3	NC	PLT	MSIV HCV-08-1A Closing Solenoid Valve
1-SE-08-1A4	NC	PLT	MSIV HCV-08-1A Close Solenoid Valve
1-SE-08-1B1	NC	PLT	MSIV HCV-08-1B Closing Solenoid Valve
1-SE-08-1B2	NC	PLT	MSIV HCV-08-1B Closing Solenoid Valve
1-SE-08-1B3	NC	PLT	MSIV HCV-08-1B Closing Solenoid Valve
1-SE-08-1B4	NC	PLT	MSIV HCV-08-1B Closing Solenoid Valve
1-SE-09-843	3	3-way	HCV-09-7 Actuator Train "A" Control Solenoids
1-SE-09-847	3	3-way	HCV-09-7 Actuator Train "B" Control Solenoids
1-SE-09-870	3	3-way	HCV-09-8 Actuator Train "B" Control Solenoids
1-SE-09-874	3	3-way	HCV-09-8 Actuator Train "A" Control Solenoids
1-SE-37-1	3	3-way	UHS Valve SB-37-1 Air Control Valve
1-SE-37-2	3	3-way	UHS Valve SB-37-2 Air Control Valve
1-SE-59-1A	3	Globe	A Fuel Oil Day Tank Inlet Isolation Valve
1-SE-59-1B	3	Globe	B Fuel Oil Day Tank Inlet Isolation Valve
1-SE-59-3A	3	Globe	1A EDG Starting Air Control Valve Pilot Valve
1-SE-59-3B	3	Globe	1B EDG Starting Air Control Valve Pilot Valve
1-SE-59-4A	3	Globe	1A EDG Starting Air Control Valve Pilot Valve
1-SE-59-4B	3	Globe	1B EDG Starting Air Control Valve Pilot Valve
1-SE-59-5A	3	Globe	1A EDG Starting Air Control Valve Pilot Valve
1-SE-59-5B	3	Globe	1B EDG Starting Air Control Valve Pilot Valve
1-SE-59-6A	3	Globe	1A EDG Starting Air Control Valve Pilot Valve

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Valve Number	Class	Type	Function
1-SE-59-6B	3	Globe	1B EDG Starting Air Control Valve Pilot Valve
1-TCV-59-1A1	3	3-way	EDG 1A1 Engine Water TCV
1-TCV-59-1A2	3	3-way	EDG 1A2 Engine Water TCV
1-TCV-59-1B1	3	3-way	EDG 1B1 Engine Water TCV
1-TCV-59-1B2	3	3-way	EDG 1B2 Engine Water TCV
1-V08923	NC	Check	Excess Air Check Valve for MSIV A Actuator Reservoir
1-V08936	NC	Check	Excess Air Check Valve for MSIV B Actuator Reservoir
1-V09831	3	3-way	HCV-09-7 Actuator "A" Train Open Pilot Vlv
1-V09832	3	3-way	HCV-09-7 Actuator "B" Train Open Pilot Vlv
1-V09833	3	3-way	HCV-09-7 Actuator "A" Train Close Pilot Vlv
1-V09834	3	3-way	HCV-09-7 Actuator "B" Train Close Pilot Vlv
1-V09861	3	3-way	HCV-09-8 Actuator "A" Train Open Pilot Vlv
1-V09862	3	3-way	HCV-09-8 Actuator "B" Train Open Pilot Vlv
1-V09863	3	3-way	HCV-09-8 Actuator "A" Train Close Pilot Vlv
1-V09864	3	3-way	HCV-09-8 Actuator "B" Train Close Pilot Vlv
1-V17204	3	Check	1A DFO Transfer Pump Discharge Check Valve
1-V17214	3	Check	1B DFO Transfer Pump Discharge Check Valve
1-V59010	3	Check	Soakback Lube Oil A/C Pump Discharge Ck for Diesel 1A1
1-V59011	3	Check	Soakback Lube Oil D/C Pump Discharge Check for Diesel 1A1
1-V59025	3	Check	Soakback Lube Oil A/C Pump Discharge Check for Diesel 1A2
1-V59026	3	Check	Soakback Lube Oil D/C Pump Discharge Check for Diesel 1A2



ATTACHMENT 5

Valve Number	Class	Type	Function
1-V59040	3	Check	Soakback Lube Oil A/C Pump Discharge Check for Diesel 1B1
1-V59041	3	Check	Soakback Lube Oil D/C Pump Discharge Check for Diesel 1B1
1-V59055	3	Check	Soakback Lube Oil D/C Pump Discharge Check for Diesel 1B2
1-V59056	3	Check	Soakback Lube Oil A/C Pump Discharge Check for Diesel 1B2
1-V59200	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
1-V59201	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
1-V59202	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
1-V59203	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
1-V59305	3	Check	EDG 1A2 North Air Start Sequencing Check Valve
1-V59306	3	Check	EDG 1A2 South Air Start Sequencing Check Valve
1-V59307	3	Check	EDG 1A1 South Air Start Sequencing Check Valve
1-V59308	3	Check	EDG 1A1 North Air Start Sequencing Check Valve
1-V59309	3	Check	EDG 1B2 North Air Start Sequencing Check Valve
1-V59310	3	Check	EDG 1B2 South Air Start Sequencing Check Valve
1-V59311	3	Check	EDG 1B1 South Air Start Sequencing Check Valve
1-V59312	3	Check	EDG 1B1 North Air Start Sequencing Check Valve
2-FCV-59-1A1	3	Gate	2A EDG Starting Air Control Valve
2-FCV-59-1B1	3	Gate	2B EDG Starting Air Control Valve
2-FCV-59-2A1	3	Gate	2A EDG Starting Air Control Valve
2-FCV-59-2B1	3	Gate	2B EDG Starting Air Control Valve
2-FCV-59-3A1	3	Gate	2A EDG Starting Air Control Valve

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Valve Number	Class	Type	Function
2-FCV-59-3B1	3	Gate	2B EDG Starting Air Control Valve
2-FCV-59-4A1	3	Gate	2A EDG Starting Air Control Valve
2-FCV-59-4B1	3	Gate	2B EDG Starting Air Control Valve
2-SE-08-896	NC	3-way	MSIV Instrument Air Supply Valve
2-SE-08-897	NC	3-way	MSIV Instrument Air Supply Valve
2-SE-08-934	NC	3-way	MSIV Instrument Air Supply Valve
2-SE-08-935	NC	3-way	MSIV Instrument Air Supply Valve
2-SE-59-1A1	3	Globe	Fuel Oil Day Tank Inlet Isolation Valve
2-SE-59-1A2	3	Globe	Fuel Oil Day Tank Inlet Isolation Valve
2-SE-59-1B1	3	Globe	Fuel Oil Day Tank Inlet Isolation Valve
2-SE-59-1B2	3	Globe	Fuel Oil Day Tank Inlet Isolation Valve
2-SE-59-3A	3	Globe	2A EDG Starting Air Control Valve Pilot Valve
2-SE-59-3B	3	Globe	2B EDG Starting Air Control Valve Pilot Valve
2-SE-59-4A	3	Globe	2A EDG Starting Air Control Valve Pilot Valve
2-SE-59-4B	3	Globe	2B EDG Starting Air Control Valve Pilot Valve
2-SE-59-5A	3	Globe	2A EDG Starting Air Control Valve Pilot Valve
2-SE-59-5B	3	Globe	2B EDG Starting Air Control Valve Pilot Valve
2-SE-59-6A	3	Globe	2A EDG Starting Air Control Valve Pilot Valve
2-SE-59-6B	3	Globe	2B EDG Starting Air Control Valve Pilot Valve
2-TCV-59-1A1	3	3-way	EDG Engine Water TCV
2-TCV-59-1A2	3	3-way	EDG Engine Water TCV
2-TCV-59-1B1	3	3-way	EDG Engine Water TCV
2-TCV-59-1B2	3	3-way	EDG Engine Water TCV

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Valve Number	Class	Type	Function
2-V08887	2	3-way	MSIV 1A Control Valve 2
2-V08888	2	3-way	MSIV 1A Control Valve 3
2-V08889	2	3-way	MSIV 1A Control Valve 4
2-V08890	2	3-way	MSIV 1A Control Valve 5
2-V08925	2	3-way	MSIV 1B Control Valve 2
2-V08926	2	3-way	MSIV 1B Control Valve 3
2-V08927	2	3-way	MSIV 1B Control Valve 4
2-V08928	2	3-way	MSIV 1B Control Valve 5
2-V08965	2	Check	MSIV 1A Actuator Vacuum Breaker Check Valve
2-V08966	2	Check	MSIV 1B Actuator Vacuum Breaker Check Valve
2-V17204	3	Check	2A DFO Transfer Pump Discharge Check Valve
2-V17214	3	Check	2B DFO Transfer Pump Discharge Check Valve
2-V59002	3	Check	Check Valve for Diesel Oil from Day Tank
2-V59005	3	Check	Check Valve for Electric Motor Driven Diesel Oil Priming
2-V59010	3	Check	Soakback Lube Oil A/C Pump Discharge Check for Diesel 2A1
2-V59011	3	Check	Soakback Lube Oil D/C Pump Discharge Check for Diesel 2A1
2-V59017	3	Check	Turbo Lube Oil D/C Pump Discharge Check for Diesel 2A1
2-V59021	3	Check	Turbo Lube Oil A/C Pump Discharge Check for Diesel 2A1
2-V59025	3	Check	Soakback Lube Oil A/C Pump Discharge Check for Diesel 2A2
2-V59026	3	Check	Soakback Lube Oil D/C Pump Discharge Check for Diesel 2A2
2-V59040	3	Check	Soakback Lube Oil A/C Pump Discharge Check for Diesel 2B1

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Valve Number	Class	Type	Function
2-V59041	3	Check	Soakback Lube Oil D/C Pump Discharge Check for Diesel 2B1
2-V59048	3	Check	Turbo Lube Oil D/C Pump Discharge Check for Diesel 2A2
2-V59051	3	Check	Turbo Lube Oil A/C Pump Discharge Check for Diesel 2A2
2-V59055	3	Check	Soakback Lube Oil D/C Pump Discharge Check for Diesel 2B2
2-V59056	3	Check	Soakback Lube Oil A/C Pump Discharge Check for Diesel 2B2
2-V59062	3	Check	Check Valve for Diesel Oil from Day Tank
2-V59066	3	Check	Check Valve for Standby Lube Oil to D/G Engine
2-V59078	3	Check	Check Valve for Diesel Oil from Day Tank
2-V59081	3	Check	Check Valve for Electric Motor Driven Diesel Oil Priming
2-V-59089	3	Check	Turbo Lube Oil A/C Pump Discharge Check for Diesel 2B1
2-V-59116	3	Check	Check Valve for Diesel Oil from Day Tank
2-V-59119	3	Check	Check Valve for Electric Motor Driven Diesel Oil Priming
2-V-59121	3	Check	Check Valve for Electric Motor-Driven Diesel Oil Priming
2-V59127	3	Check	Turbo Lube Oil A/C Pump Discharge Check for Diesel 2B2
2-V59165	3	Check	Turbo Lube Oil D/C Pump Discharge Check for Diesel 2B1
2-V59183	3	Check	EDG 2A1 North Air Start Sequencing Check Valve
2-V59187	3	Check	EDG 2A1 South Air Start Sequencing Check Valve
2-V59191	3	Check	EDG 2A2 North Air Start Sequencing Check Valve
2-V59192	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
2-V59193	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
2-V59194	3	Check	Check Valve for Standby Lube Oil to D/G Engine
2-V59197	3	Check	EDG 2A2 South Air Start Sequencing Check Valve

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Valve Number	Class	Type	Function
2-V59198	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
2-V59199	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
2-V59213	3	Check	Check Valve for Standby Lube Oil to D/G Engine
2-V59219	3	Check	Turbo Lube Oil D/C Pump Discharge Check for Diesel 2B2
2-V59231	3	Check	EDG 2B1 South Air Start Sequencing Check Valve
2-V59232	3	Check	Check Valve for Standby Lube Oil to D/G Engine
2-V59235	3	Check	EDG 2B1 North Air Start Sequencing Check Valve
2-V59239	3	Check	EDG 2B2 North Air Start Sequencing Check Valve
2-V59240	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
2-V59241	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
2-V59245	3	Check	EDG 2B2 South Air Start Sequencing Check Valve
2-V59246	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
2-V59247	3	Check	Check Valve Assembly for D/G Engine Governor Air Boosters
2-V59333	3	Check	Fuel Oil Priming Pump Relief Check Valve
2-V59334	3	Check	Fuel Oil Priming Pump Relief Check Valve
2-V59335	3	Check	Fuel Oil Priming Pump Relief Check Valve
2-V59336	3	Check	Fuel Oil Priming Pump Relief Check Valve

**6.0 History**

None

ATTACHMENT 5  
**TP-10 Testing of Containment Purge Valves**

This Technical Position Was Deleted

ATTACHMENT 5

**TP-11 TESTING OF POWER OPERATED VALVES  
WITH BOTH ACTIVE AND PASSIVE SAFETY FUNCTIONS**

**1.0 Purpose**

The purpose of this Technical Position is to establish the testing requirements for power operated valves which have both an active and passive safety function.

**2.0 Applicability**

This Technical Position is applicable to power operated valves which have an active safety function in one direction while performing a passive safety function in the other direction.

**3.0 Background**

The IST Program requires valves to be exercised to the position(s) required to fulfill their safety function(s). In addition, valves with remote position indication shall have their position indication verified. The Code does not restrict position indication to active valves.

**4.0 Position**

Several valves included in the plant are designed to perform passive safety functions during accident conditions, and then based on plant accident response, are designed to change positions to perform another (active) function. Once in their final position, there exist no conditions (for certain valves) in which they would be required to be placed in their original passive position.

These valves are typically emergency core cooling system valves, which are required to change positions in support of different phases of the accident. After the initial passive safety function is accomplished, the valves are required to be repositioned (i.e., an “active” function) to an alignment that creates either a secondary safety related injection flow path or simply isolates the initial flow path (e.g., provide containment isolation or to allow injection from another water source). If these valves are not ever required to be returned to their original position, then they are considered to be passive in their initial position.

Power operated valves with passive functions in one direction and active in the other, will be exercised and stroke timed to only their active position. If these valves have position indication, the position indication verification will include verification of both positions.

**5.0 Justification**

Code Interpretation 01-02 (response to inquiry OMI 99-07) addressed this issue.

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Question: If a valve has safety functions in both the open and closed positions and is maintained in one of these positions, but is only required to move from the initial position to the other and is not required to return to the initial position, is stroke timing in both directions required?

Reply: No

**6.0 History**

None



ATTACHMENT 5

**TP-12 VALVE POSITION INDICATION VERIFICATION TESTING**

**1.0 Purpose**

The purpose of this Technical Position is to establish the plant position for the position-indication verification of IST valves

**2.0 Applicability**

This Technical Position is applicable to motor-operated valves required to be tested in accordance with ISTC-3700 of the applicable ASME OM Code.

**3.0 Background**

The ASME OM Code, 2004 Edition with 2006 Addenda, Section ISTC-3700 requires:

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

ASME Code Inquiry 11-913 (Interpretation: 12-01):

Question (1): If it is practicable, is it a requirement of ISTC-4.1 (ISTC-3700) that local observation of valve operation be supplemented by other indications to verify obturator position?

Reply (1): No

**4.0 Position**

In cases where a valve has a remote position indicator, the position indication verification testing requirement is satisfied by locally observing an installed mechanical indicator or exposed stem in accordance with ISTC-3700. Supplemental test methods may be optionally utilized, including:

- Leak-rate measurement
- Flow measurement
- Pressure or differential pressure monitoring
- Non-destructive examination
- Disassembly and inspection

If the valve position cannot be observed locally, supplemental testing methods must be utilized when performing position indication verification as required by ISTC-3700. Valves that have been identified as at-risk for disk-stem separation

## ATTACHMENT 5

must also utilize supplemental testing methods regardless of local position indication verification.

### **5.0 Justification**

ASME OM Code, Section ISTC-3700 requires that all valves with remote position indicators shall be observed locally to verify that the valve operation is accurately indicated. While the same section recommends that additional methods be used to confirm the obturator position, but the supplemental test methods are not required to satisfy the position indication verification test unless the valve position is not locally observable.

An inquiry to ASME requested clarification as to whether supplemental test methods were required by the Code to confirm the local valve observation. The ASME response was that supplemental test methods are not required.

ATTACHMENT 6

INSERVICE TESTING PUMP TABLE

Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
AFW PP 1A	Auxiliary Feedwater Pump	8770 G 080-4	E-4	B	3	Centrifugal	Motor	dPb	3M		
								dPc	2Y		
								Qc	2Y		
								Vc	2Y		
AFW PP 1B	Auxiliary Feedwater Pump	8770 G 080-4	C-4	B	3	Centrifugal	Motor	dPb	3M		
								dPc	2Y		
								Qc	2Y		
								Vc	2Y		
AFW PP 1C	Auxiliary Feedwater Pump	8770 G 080-4	F-4	B	3	Centrifugal	Turbine	dPb	3M		
								dPc	2Y		
								Qc	2Y		
								Sb	3M		
								Sc	2Y		
								Vc	2Y		
CCW PP 1A	Component Cooling Water Pump	8770 G 083-1	F-6	A	3	Centrifugal	Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		

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Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
CCW PP 1B	Component Cooling Water Pump	8770 G 083-1	F-6	A	3	Centrifugal	Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
CCW PP 1C	Component Cooling Water Pump	8770 G 083-1	F-7	A	3	Centrifugal	Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
CNTMT PP 1A	SPR Containment Spray Pump	8770 G 088-1	G-6	B	2	Centrifugal	Motor	dPb	3M		
								dPc	2Y		
								Qc	2Y		
								Vc	2Y		
CNTMT PP 1B	SPR Containment Spray Pump	8770 G 088-1	H-6	B	2	Centrifugal	Motor	dPb	3M		
								dPc	2Y		
								Qc	2Y		
								Vc	2Y		
BAM PP 1A	Boric Acid Makeup Pump	8770 G 078-121B	G-4	A	2	Centrifugal	Motor	dPa	3M	PR-06	
								dPc	2Y		
								Qa	3M		
								Qc	2Y		

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Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
								Va	3M		
								Vc	2Y		
BAM PP 1B	Boric Acid Makeup Pump	8770 121B	G 078- F-4	A	2	Centrifugal	Motor	dPa	3M	PR-06	
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
CHG PP 1A	Charging Pump	8770 120B	G 078- C-2	A	2	Positive Displacement	Motor	DIS-Pa	3M	PR-01	
								DIS-Pc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
CHG PP 1B	Charging Pump	8770 120B	G 078- E-2	A	2	Positive Displacement	Motor	DIS-Pa	3M	PR-01	
								DIS-Pc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
CHG PP 1C	Charging Pump	8770 120B	G 078- G-2	A	2	Positive Displacement	Motor	DIS-Pa	3M		
								DIS-Pc	2Y		
								Qa	3M		
								Qc	2Y		

ATTACHMENT 6

Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
								Va	3M	PR-01	
								Vc	2Y	PR-01	
DOT 1A	Diesel Fuel Oil Transfer Pump	8770 G 086-1	B-2	N/A	3	Centrifugal	Motor	SKID	3M		TP-09
DOT 1B	Diesel Fuel Oil Transfer Pump	8770 G 086-1	D-2	N/A	3	Centrifugal	Motor	SKID	3M		TP-09
EDG EPP 1A1	Diesel Fuel Electric Priming Pump	8770 G 096-1A	G-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG EPP 1A2	Diesel Fuel Electric Priming Pump	8770 G 096-1B	B-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG EPP 1B1	Diesel Fuel Electric Priming Pump	8770 G 096-2A	G-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG EPP 1B2	Diesel Fuel Electric Priming Pump	8770 G 096-2B	B-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO AC 1A1	Diesel Soak Back Lube Oil AC Pump	8770 G 096-1A	B-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO AC 1A2	Diesel Soak Back Lube Oil AC Pump	8770 G 096-1B	G-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO AC 1B1	Diesel Soak Back Lube Oil AC Pump	8770 G 096-2A	B-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO AC 1B2	Diesel Soak Back Lube Oil AC Pump	8770 G 096-2B	G-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09

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Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
EDG SBLO DC 1A1	Diesel Soak Back Lube Oil DC Pump	8770 G 096-1A	B-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO DC 1A2	Diesel Soak Back Lube Oil DC Pump	8770 G 096-1B	F-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO DC 1B1	Diesel Soak Back Lube Oil DC Pump	8770 G 096-2A	B-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO DC 1B2	Diesel Soak Back Lube Oil DC Pump	8770 G 096-2B	F-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
HPSI PP 1A	High Pressure Safety Injection Pump	8770 G 078-130A	C-3	B	2	Centrifugal	Motor	dPb dPc Qc Vc	3M 2Y 2Y 2Y		
HPSI PP 1B	High Pressure Safety Injection Pump	8770 G 078-130A	G-3	B	2	Centrifugal	Motor	dPb dPc Qc Vc	3M 2Y 2Y 2Y		
ICW PP 1A	Intake Cooling Water Pump	8770 G 082-2	H-5	A	3	Vertical Line Shaft	Motor	dPa dPc Qa Qc Va Vc	3M 2Y 3M 2Y 3M 2Y		

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Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
ICW PP 1B	Intake Cooling Water Pump	8770 G 082-2	H-7	A	3	Vertical Line Shaft	Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
ICW PP 1C	Intake Cooling Water Pump	8770 G 082-2	H-7	A	3	Vertical Line Shaft	Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
LPSI PP 1A	Low Pressure Safety Injection Pump	8770 G 078-130B	F-3	A/B	2	Centrifugal	Motor	dPb	3M	PR-04,05	
								dPc	CS		
								Qc	CS		
								Vc	CS		
LPSI PP 1B	Low Pressure Safety Injection Pump	8770 G 078-130B	G-3	A/B	2	Centrifugal	Motor	dPb	3M	PR-04,05	
								dPc	CS		
								Qc	CS		
								Vc	CS		
AFW PP 2A	Auxiliary Feedwater Pump	2998 G 080-2B	B-4	B	3	Centrifugal	Motor	dPb	3M		
								dPc	2Y		
								Qc	2Y		
								Vc	2Y		



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Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
AFW PP 2B	Auxiliary Feedwater Pump	2998 G 080-2B	B-4	B	3	Centrifugal	Motor	dPb	3M		
								dPc	2Y		
								Qc	2Y		
								Vc	2Y		
AFW PP 2C	Auxiliary Feedwater Pump	2998 G 080-2B	F3	B	3	Centrifugal	Turbine	dPb	3M		
								dPc	2Y		
								Qc	2Y		
								Sb	3M		
								Sc	2Y		
								Vc	2Y		
BAM PP 2A	Boric Acid Makeup Pump	2998 G 078-121B	F-4	A	2	Centrifugal	Motor	dPa	3M	PR-06	
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
BAM PP 2B	Boric Acid Makeup Pump	2998 G 078-121B	G-4	A	2	Centrifugal	Motor	dPa	3M	PR-06	
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		

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Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
CCW PP 2A	Component Cooling Water Pump	2998 G 083-1	E-6	A	3	Centrifugal	Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
CCW PP 2B	Component Cooling Water Pump	2998 G 083-1	E-6	A	3	Centrifugal	Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
CCW PP 2C	Component Cooling Water Pump	2998 G 083-1	E-6	A	3	Centrifugal	Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
CNTMT PP 2A	SPR Containment Spray Pump	2998 G 088-1	G-5	B	2	Centrifugal	Motor	dPb	3M		
								dPc	2Y		
								Qc	2Y		
								Vc	2Y		

ATTACHMENT 6

Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
CNTMT PP 2B	SPR	Containment Spray Pump	2998 G 088-1	H-5	B	2	Centrifugal	Motor	dPb	3M	
									dPc	2Y	
									Qc	2Y	
									Vc	2Y	
HYDRZN 2A	PP	Hydrazine Pump	2998 G 088-1	G-3	B	2	Positive Displacement	Motor	DIS-Pb	3M	PR-03
									DIS-Pc	2Y	
									Qc	2Y	
									Sb	3M	PR-02
									Sc	2Y	
									Vc	2Y	
HYDRZN 2B	PP	Hydrazine Pump	2998 G 088-1	H-3	B	2	Positive Displacement	Motor	DIS-Pb	3M	PR-03
									DIS-Pc	2Y	
									Qc	2Y	
									Sb	3M	PR-02
									Sc	2Y	
									Vc	2Y	
CHG PP 2A	Charging Pump	2998 G 078-122	G-2	A	2	Positive Displacement	Motor	DIS-Pa	3M		
								DIS-Pc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		PR-01
								Vc	2Y		PR-01

ATTACHMENT 6

Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
CHG PP 2B	Charging Pump	2998 G 078-122	E-2	A	2	Positive Displacement	Motor	DIS-Pa DIS-Pc Qa Qc Va Vc	3M 2Y 3M 2Y 3M 2Y	PR-01 PR-01	
CHG PP 2C	Charging Pump	2998 G 078-122	B-2	A	2	Positive Displacement	Motor	DIS-Pa DIS-Pc Qa Qc Va Vc	3M 2Y 3M 2Y 3M 2Y	PR-01 PR-01	
DOT 2A	Diesel Fuel Oil Transfer Pump	2998 G 086-1	B-2	N/A	3	Centrifugal	Motor	SKID	3M		TP-09
DOT 2B	Diesel Fuel Oil Transfer Pump	2998 G 086-1	D-2	N/A	3	Centrifugal	Motor	SKID	3M		TP-09
EDG EPP 2A1	Diesel Fuel Electric Priming Pump	2998 G 096-1A	B-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG EPP 2A2	Diesel Fuel Electric Priming Pump	2998 G 096-1B	H-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG EPP 2B1	Diesel Fuel Electric Priming Pump	2998 G 096-2A	B-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09

ATTACHMENT 6

Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
EDG EPP 2B2	Diesel Fuel Electric Priming Pump	2998 G 096-2B	H-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO AC 2A1	Diesel Soak Back Lube Oil AC Pump	2998 G 096-1A	G-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO AC 2A2	Diesel Soak Back Lube Oil AC Pump	2998 G 096-1B	B-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO AC 2B1	Diesel Soak Back Lube Oil AC Pump	2998 G 096-2A	G-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO AC 2B2	Diesel Soak Back Lube Oil AC Pump	2998 G 096-2B	B-5	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO DC 2A1	Diesel Soak Back Lube Oil DC Pump	2998 G 096-1A	G-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO DC 2A2	Diesel Soak Back Lube Oil DC Pump	2998 G 096-1B	B-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO DC 2B1	Diesel Soak Back Lube Oil DC Pump	2998 G 096-2A	G-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG SBLO DC 2B2	Diesel Soak Back Lube Oil DC Pump	2998 G 096-2B	B-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG TCLO AC 2A1	Diesel Turbo Charger Lube Oil AC Pump	2998 G 096-1A	G-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09

ATTACHMENT 6

Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
EDG TCLO AC 2A2	Diesel Turbo Charger Lube Oil AC Pump	2998 G 096-1B	B-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG TCLO AC 2B1	Diesel Turbo Charger Lube Oil AC Pump	2998 G 096-2A	G-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG TCLO AC 2B2	Diesel Turbo Charger Lube Oil AC Pump	2998 G 096-2B	B-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG TCLO DC 2A1	Diesel Turbo Charger Lube Oil DC Pump	2998 G 096-1A	G-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG TCLO DC 2A2	Diesel Turbo Charger Lube Oil DC Pump	2998 G 096-1B	B-3	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG TCLO DC 2B1	Diesel Turbo Charger Lube Oil DC Pump	2998 G 096-2A	G-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
EDG TCLO DC 2B2	Diesel Turbo Charger Lube Oil DC Pump	2998 G 096-2B	B-4	N/A	3	Positive Displacement	Motor	SKID	3M		TP-09
HPSI PP 2A	High Pressure Safety Injection Pump	2998 G 078-130A	B-3	B	2	Centrifugal	Motor	dPb dPc Qc Vc	3M 2Y 2Y 2Y		
HPSI PP 2B	High Pressure Safety Injection Pump	2998 G 078-130A	F-3	B	2	Centrifugal	Motor	dPb dPc Qc	3M 2Y 2Y		

ATTACHMENT 6

Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
								Vc	2Y		
ICW PP 2A	Intake Cooling Water Pump	2998 G 082-2	H-5	A	3	Vertical Shaft	Line Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
ICW PP 2B	Intake Cooling Water Pump	2998 G 082-2	H-7	A	3	Vertical Shaft	Line Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
ICW PP 2C	Intake Cooling Water Pump	2998 G 082-2	H-6	A	3	Vertical Shaft	Line Motor	dPa	3M		
								dPc	2Y		
								Qa	3M		
								Qc	2Y		
								Va	3M		
								Vc	2Y		
LPSI PP 2A	Low Pressure Safety Injection Pump	2998 G 078-130B	E-3	A/B	2	Centrifugal	Motor	dPb	3M	PR-04,05	
								dPc	CS		
								Qc	CS		

ATTACHMENT 6

Pump Number	Pump Name	P&ID	P&ID Coordinates	Group	Safety Class	Pump Type	Driver	Test Type	Test Frequency	Relief Request	Technical Position
								Vc	CS		
LPSI PP 2B	Low Pressure Safety Injection Pump	2998 G 078- 130B F-3		A/B	2	Centrifugal	Motor	dPb dPc Qc Vc	3M CS CS CS	PR-04,05	



ATTACHMENT 7  
INSERVICE TESTING VALVE TABLE

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-HCV-14-1	RCP Cooling Water Inlet Containment Isolation Valve	8770 G 083-1B	E-6	2	A	8	BTF	PO	A	O	C	FSC	CS		CS-13	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-13	
1-HCV-14-10	Nonessential Header Outlet Isolation Valve	8770 G 083-1A	H-6	3	B	16	BTF	PO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-HCV-14-2	RCP Cooling Water Outlet Containment Isolation Valve	8770 G 083-1B	E-7	2	A	8	BTF	PO	A	O	C	FSC	CS		CS-13	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-13	

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-HCV-14-3A	1A Shutdown Cooling Heat Exchanger Water Return Valve	8770 G 083-1A	F-1	3	B	14	BTF	AO	A	C	O	FSO	3M			TP-03
												PIT	2Y			
												ST-O	3M			
1-HCV-14-3B	1B Shutdown Cooling Heat Exchanger Water Return Valve	8770 G 083-1A	F-2	3	B	14	BTF	AO	A	C	O	FSO	3M			TP-03
												PIT	2Y			
												ST-O	3M			
1-HCV-14-6	RCP Cooling Water Outlet Containment Isolation Valve	8770 G 083-1B	D-7	2	A	8	BTF	PO	A	O	C	FSC	CS		CS-13	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-13	

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-HCV-14-7	RCP Cooling Water Inlet Containment Isolation Valve	8770 G 083-1B	D-6	2	A	8	BTF	PO	A	O	C	FSC	CS		CS-13	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-13	
1-HCV-14-8A	Nonessential Header Inlet Isolation Valve	8770 G 083-1A	D-4	3	B	16	BTF	PO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-HCV-14-8B	Nonessential Header Inlet Isolation Valve	8770 G 083-1A	D-5	3	B	16	BTF	PO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-HCV-14-9	Nonessential Header Outlet Isolation Valve	8770 G 083-1A	H-5	3	B	16	BTF	PO	A	O	C	FSC	3M			TP-03

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	3M			
1-MV-09-9	1A AFW Pump Flow Control Valve	8770 G 080-4	E-6	3	B	4	GL	MO	A	C	O	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-MV-14-1	1C CCW Pump to Header A Discharge Stop Valve	8770 G 083-1A	E-6	3	B	24	BTF	MO	P	C	C	PIT	2Y			
1-MV-14-2	1C CCW Pump to Header B Discharge Stop Valve	8770 G 083-1A	E-7	3	B	24	BTF	MO	P	O	C	PIT	2Y			
1-MV-14-3	Header A to 1C CCW Pump Suction Stop Valve	8770 G 083-1A	G-7	3	B	24	BTF	MO	P	C	C	PIT	2Y			
1-MV-14-4	Header B to 1C CCW Pump Suction Stop Valve	8770 G 083-1A	G-7	3	B	24	BTF	MO	P	O	C	PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-MV-14-5	Containment Cooling Units CCW Isolation Valve	8770 G 083-1A	C-2	2	B	10	BTF	MO	P	O	O	PIT	2Y			
1-MV-14-6	Containment Cooling Units CCW Isolation Valve	8770 G 083-1A	C-3	2	B	10	BTF	MO	P	O	O	PIT	2Y			
1-MV-14-7	Containment Cooling Units CCW Isolation Valve	8770 G 083-1A	H-2	2	B	10	BTF	MO	P	O	O	PIT	2Y			
1-MV-14-8	Containment Cooling Units CCW Isolation Valve	8770 G 083-1A	F-3	2	B	10	BTF	MO	P	O	O	PIT	2Y			
1-SR-14-7A	1A Shutdown Heat Exchangers Shell Side Relief Valve	8770 G 083-1A	E-2	3	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-SR-14-7B	1B Shutdown Heat Exchangers Shell Side Relief Valve	8770 G 083-1A	E-2	3	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-SR-14-8A	1A Containment Cooling Unit CCW Relief Valve	8770 G 083-1A	A-3	3	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-SR-14-8B	1B Containment Cooling Unit CCW Relief Valve	8770 G 083-1A	A-4	3	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-SR-14-8C	1C Containment Cooling Unit CCW Relief Valve	8770 G 083-1A	A-1	3	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-SR-14-8D	1D Containment Cooling Unit CCW Relief Valve	8770 G 083-1A	A-2	3	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-V14143	1A Component Cooling Water Pump Discharge Check Valve	8770 G 083-1A	F-6	3	C	20	CK	SA	A	O	O/C	CCF	3M			
												COF	3M			
1-V14147	1B Component Cooling Water Pump Discharge Check Valve	8770 G 083-1A	F-7	3	C	20	CK	SA	A	O	O/C	CCF	3M			
												COF	3M			
1-V14151	1C Component Cooling Water Pump Discharge Check Valve	8770 G 083-1A	F-7	3	C	20	CK	SA	A	O	O/C	CCF	3M			
												COF	3M			
1-FCV-07-1A	Containment Spray Discharge Header Control Valve	8770 G 088-2	B-3	2	B	12	BTF	AO	A	C	O	FSO	3M			TP-03
												PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	3M			
1-FCV-07-1B	Containment Spray Discharge Header Control Valve	8770 G 088-2	D-3	2	B	12	BTF	AO	A	C	O	FSO	3M			TP-03
												PIT	2Y			
												ST-O	3M			
1-MV-07-1A	Isolation for RWT Feed to 'A' Train LPSI, HPSI, & CNTMT SPR	8770 G 088-1	E-5	2	B	24	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			TP-11
1-MV-07-1B	Isolation for RWT to 'B' Train LPSI, HPSI, & CNTMT Spray Pump	8770 G 088-1	E-5	2	B	24	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			TP-11
1-MV-07-3A	Containment Spray Discharge Header Stop Valve	8770 G 088-2	B-3	2	B	12	GA	MO	A	LO	O	PIT	2Y			
												ST-C	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-MV-07-3B	Containment Spray Discharge Header Stop Valve	8770 G 088-2	D-3	2	B	12	GA	MO	A	LO	O	PIT	2Y			
												ST-C	3M			
1-SE-07-1A	NaOH Storage Tank Discharge Valve	8770 G 088-1	G-1	2	B	2	GL	SO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-SE-07-1B	NaOH Storage Tank Discharge Valve	8770 G 088-1	G-3	2	B	2	GL	SO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-SE-07-2A	NaOH Storage Tank Discharge Valve	8770 G 088-1	G-1	2	B	2	GL	SO	A	C	O/C	FSC	3M			TP-03



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-SE-07-2B	NaOH Storage Tank Discharge Valve	8770 G 088-1	G-3	2	B	2	GL	SO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V07119	1B RWT Outlet Check Valve	8770 G 088-1	E-6	2	C	24	CK	SA	A	C	O/C	CCU	2R			TP-07
												CP	2R			TP-07
1-V07120	1A RWT Outlet Check Valve	8770 G 088-1	E-6	2	C	24	CK	SA	A	C	O/C	CCU	2R			TP-07
												CP	2R			TP-07
1-V07129	1B Containment Spray Pump Discharge Check Valve	8770 G 088-1	H-6	2	C	12	CK	SA	A	C	O	CCU	2R			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R			TP-07
1-V07130	1B Containment Spray Pump Discharge Isolation Valve	8770 G 088-1	H-7	2	B	12	GA	M	A	LO	O/C	ME	2Y			
1-V07143	1A Containment Spray Pump Discharge Check Valve	8770 G 088-1	G-6	2	C	12	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
1-V07145	1A Containment Spray Pump Discharge Isolation Valve	8770 G 088-1	G-7	2	B	12	GA	M	A	LO	O/C	ME	2Y			
1-V07192	B Train Containment Spray Discharge Header Check Valve	8770 G 088-2	C-4	2	C	10	CK	SA	A	C	O	CCD	5R			TP-01, TP-07
												COD	5R			TP-07
1-V07193	A Train Containment Spray Discharge Header Check Valve	8770 G 088-2	C-4	2	C	10	CK	SA	A	C	O	CCD	5R			TP-01, TP-07
												COD	5R			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V07256	NaOH Supply Check Valve	8770 G 088-1	G-4	2	C	2	CK	SA	A	C	O/C	CCF	1R			TP-07
												COF	1R			TP-07
1-V07258	NaOH Supply Check Valve	8770 G 088-1	H-4	2	C	2	CK	SA	A	C	O/C	CCF	1R			TP-07
												COF	1R			TP-07
1-V07271	LPSI to CS Pump 1B Suction Iso Valve	8770 G 088-1	H-3	2	B	3	GA	M	A	LO	O	ME	2Y			
1-V07272	LPSI to CS Pump 1A Suction Iso Valve	8770 G 088-1	G-4	2	B	3	GA	M	A	LO	O	ME	2Y			
1-MV-02-1	Regenerative Heat Exchanger Bypass Valve	8770 G 078-120B	F-5	2	B	2	GL	MO	P	O	O	PIT	2Y			
1-SE-01-1	RCP Seal Water Return Isolation Valve	8770 G 078-121A	C-2	2	A	0.75	GL	SO	A	O	C	FSC	CS		CS-06	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-06	

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-SE-02-1	Charging Line to RCS Cold Leg Stop Valve	8770 G 078-120B	D-6	1	B	2	GL	SO	A	O	O/C	FSO	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-SE-02-2	Charging Line to RCS Cold Leg Stop Valve	8770 G 078-120B	C-6	1	B	2	GL	SO	A	O	O/C	FSO	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-SE-02-3	Auxiliary Pressurizer Spray Isolation Valve	8770 G 078-120B	F-6	1	B	2	GL	SO	A	LC	O/C	FSC	CS		CS-03	TP-03
												PIT	2Y			
												ST-C	CS		CS-03	
												ST-O	CS		CS-03	

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-SE-02-4	Auxiliary Pressurizer Spray Isolation Valve	8770 G 078- 120B	E-6	1	B	2	GL	SO	A	LC	O/C	FSC	CS		CS-03	TP-03
												PIT	2Y			
												ST-C	CS		CS-03	
												ST-O	CS		CS-03	
1-V02132	1A Charging Pump Discharge CV	8770 G 078- 120B	C-3	2	C	2	CK	SA	A	SYS	O/C	CCL	3M			
												COF	3M			
1-V02133	1B Charging Pump Discharge CV	8770 G 078- 120B	E-3	2	C	2	CK	SA	A	SYS	O/C	CCL	3M			
												COF	3M			
1-V02134	1C Charging Pump Discharge CV	8770 G 078- 120B	G-3	2	C	2	CK	SA	A	SYS	O/C	CCL	3M			
												COF	3M			
1-V02359	Charging to SE-02-4 Pressurizer Aux Spray Check	8770 G 078- 120B	E-5	2	C	2	CK	SA	A	C	O	CCU	2R			TP 01 TP 07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												CP	2R			TP-07
1-V02337	Zink Inj Disch Check Valve	8770 G 078-121A	E-6	2	C	0.5	CK	SA	A	O	C	COF	2R			TP-01, TP-07
												CCF	2R			TP-07
1-V2115	Relief Valve for VCT Outlet	8770 G 078-121A	D-5	3	C	4	RV	SA	A	C	O/C	RVT	10Y			
1-V2118	VCT Discharge Header Check Valve	8770 G 078-121A	E-5	2	C	4	CK	SA	A	O	O/C	CCU	2R			TP-07
												COF	2R			TP-07
1-V2177	BAM Pump Discharge CV to Charging Pump Suction	8770 G 078-121B	H-5	2	C	3	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
1-V2190	Boric Acid Gravity Feed Check Valve	8770 G 078-121B	G-2	2	C	3	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
1-V2191	RWT to Charging Pump Suction Check Valve	8770 G 078-121A	F-5	2	C	3	CK	SA	A	C	O/C	CCU	2R			TP-07
												COF	2R			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V2311	Charging Pump Suction Header Relief Valve	8770 G 078-121A	F-6	2	C	0.5	RV	SA	A	C	O/C	RVT	10Y			
1-V2315	1A Charging Pump Suction Relief Valve	8770 G 078-120B	B-2	2	C	0.5	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-V2318	1B Charging Pump Suction Relief Valve	8770 G 078-120B	D-2	2	C	0.5	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-V2321	1C Charging Pump Suction Relief Valve	8770 G 078-120B	F-2	2	C	0.5	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-V2324	1C Charging Pump Discharge Relief Valve	8770 G 078-120B	F-3	2	C	1.5	RV	SA	A	C	O/C	RVT	10Y			
1-V2325	1B Charging Pump Discharge Relief Valve	8770 G 078-120B	D-3	2	C	1.5	RV	SA	A	C	O/C	RVT	10Y			
1-V2326	1A Charging Pump Discharge Relief Valve	8770 G 078-120B	B-3	2	C	1.5	RV	SA	A	C	O/C	RVT	10Y			
1-V2336	1C Charging Pump Discharge Isolation Valve	8770 G 078-120B	G-3	2	B	2	GL	M	A	LO	O/C	ME	2Y			
1-V2337	1B Charging Pump Discharge Isolation Valve	8770 G 078-120B	E-3	2	B	2	GL	M	A	LO	O/C	ME	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V2338	CVCS to HPSI Auxiliary Header Isolation Valve	8770 G 078-120B	D-3	2	B	2	GA	M	A	LO	O/C	ME	2Y			
1-V2339	1A Charging Pump Discharge Isolation Valve	8770 G 078-120B	C-3	2	B	2	GL	M	A	LO	O/C	ME	2Y			
1-V2340	CVCS to HSPI Auxiliary Header Cross-Connect	8770 G 078-120B	A-3	2	B	2	GA	M	A	C	O/C	ME	2Y			
1-V2354	Safety Rlf for Letdown Holdup Tank Dwnstrm FE-2202	8770 G 078-120A	C-6	3	C	3	RV	SA	A	C	O/C	RVT	10Y			
1-V2429	Charging Line Isolation Valve	8770 G 078-120B	B-4	2	B	2	GA	M	A	LO	O/C	ME	2Y			
1-V2430	Charging Header Check Valve	8770 G 078-120B	B-5	2	C	2	CK	SA	A	O	O	CCU	2R			TP-01, TP-07
												CP	2R			TP-07
1-V2431	Auxiliary Pressurizer Spray Check Valve	8770 G 078-120B	F-7	1	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												CP	2R			TP-07
1-V2432	RCS Cold Leg Chrgng Line CV	8770 G 078-120B	D-7	1	C	2	CK	SA	A	O	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V2433	RCS Cold Leg Chrgng Line CV	8770 G 078-120B	C-7	1	C	2	CK	SA	A	O	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
1-V2435	SE-02-2 Bypass Relief Valve	8770 G 078-120B	C-6	1	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
1-V2443	1B Boric Acid Makeup Pump Discharge Check Valve	8770 G 078-121B	F-4	2	C	3	CK	SA	A	C	O/C	CCF	2R			TP-07
												COF	2R			TP-07
1-V2444	1A Boric Acid Makeup Pump Discharge Check Valve	8770 G 078-121B	G-4	2	C	3	CK	SA	A	C	O/C	CCF	2R			TP-07
												COF	2R			TP-07
1-V2501	Volume Control Tank Discharge Isolation Valve	8770 G 078-121A	E-5	2	B	4	GA	MO	A	O	O/C	PIT	2Y			
												ST-C	CS		CS-05	
												ST-O	CS		CS-05	

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V2504	RWT to Charging Pump Suction Isolation Valve	8770 G 078-121A	F-5	3	B	3	GA	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V2505	RCP Seal Water Return Valve	8770 G 078-121A	C-3	2	A	0.75	GL	AO	A	O	C	FSC	CS		CS-06	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-06	
1-V2508	1B Boric Acid Tank Gravity Feed Iso Valve	8770 G 078-121B	F-3	2	B	3	GA	MO	A	C	O	PIT	2Y			
												ST-O	3M			
1-V2509	1A Boric Acid Tank Gravity Feed Iso Valve	8770 G 078-121B	F-2	2	B	3	GA	MO	A	C	O	PIT	2Y			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V2510	1A Boric Acid Makeup Pump Recirc Control Valve	8770 G 078-121B	H-3	2	B	1	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-V2511	1B Boric Acid Makeup Pump Recirc Control Valve	8770 G 078-121B	D-4	2	B	1	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-V2514	Boric Acid Makeup Pump Disch to Chargin Pump Suction	8770 G 078-121B	H-5	2	B	3	GA	MO	A	C	O	PIT	2Y			
												ST-O	3M			
1-V2515	Letdown Isolation Valve	8770 G 078-120B	G-7	1	A	2	GL	AO	A	O	C	FSC	CS		CS-04	TP-03
												LT-J	App J			
												PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	CS		CS-04	
1-V2516	Letdown Isolation Valve	8770 G 078-120B	G-6	1	A	2	GL	AO	A	O	C	FSC	CS		CS-04	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-04	
1-V2525	BAMT and RMW to Charging Pump Suction Iso Valve	8770 G 078-121A	G-4	3	B	4	GA	MO	A	C	C	PIT	2Y			
												ST-C	3M			
1-V2526	Volume Control Tank Discharge Check Valve	8770 G 078-121A	D-5	3	C	4	CK	SA	A	O	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
1-V2621	PMW/BAM Supply to VCT Check Valve	8770 G 078-121A	C-4	3	B	3	GA	M	A	O	C	ME	2Y			
1-FCV-59-1A1	1A EDG Starting Air Control Valve	8770 G 096-1C	H-2	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
1-FCV-59-1B1	1B EDG Starting Air Control Valve	8770 G 096-2C	G-4	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-FCV-59-2A1	1A EDG Starting Air Control Valve	8770 G 096-1C	H-4	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
1-FCV-59-2B1	1B EDG Starting Air Control Valve	8770 G 096-2C	G-2	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
1-FCV-59-3A1	1A EDG Starting Air Control Valve	8770 G 096-1C	G-4	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
1-FCV-59-3B1	1B EDG Starting Air Control Valve	8770 G 096-2C	H-4	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
1-FCV-59-4A1	1A EDG Starting Air Control Valve	8770 G 096-1C	G-2	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
1-FCV-59-4B1	1B EDG Starting Air Control Valve	8770 G 096-2C	H-2	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
1-SE-59-3A	1A EDG Starting Air Control Valve Pilot Valve	8770 G 096-1C	G-2	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
1-SE-59-3B	1B EDG Starting Air Control Valve Pilot Valve	8770 G 096-2C	H-2	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
1-SE-59-4A	1A EDG Starting Air Control Valve Pilot Valve	8770 G 096-1C	F-2	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
1-SE-59-4B	1B EDG Starting Air Control Valve Pilot Valve	8770 G 096-2C	F-2	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
1-SE-59-5A	1A EDG Starting Air Control Valve Pilot Valve	8770 G 096-1C	G-4	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-SE-59-5B	1B EDG Starting Air Control Valve Pilot Valve	8770 G 096-2C	G-4	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
1-SE-59-6A	1A EDG Starting Air Control Valve Pilot Valve	8770 G 096-1C	F-4	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
1-SE-59-6B	1B EDG Starting Air Control Valve Pilot Valve	8770 G 096-2C	F-4	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
1-SH-59085	Diesel Starting Air Tank 1A4 Outlet Isolation Valve	8770 G 096-1C	D-4	3	B	2	BAL	M	P	LO	O	PIT	2Y			
1-SH-59086	Diesel Starting Air Tank 1A3 Outlet Isolation Valve	8770 G 096-1C	D-3	3	B	2	BAL	M	P	LO	O	PIT	2Y			
1-SH-59087	Diesel Starting Air Tank 1A2 Outlet Isolation Valve	8770 G 096-1C	D-2	3	B	2	BAL	M	P	LO	O	PIT	2Y			
1-SH-59088	Diesel Starting Air Tank 1A1 Outlet Isolation Valve	8770 G 096-1C	D-1	3	B	2	BAL	M	P	LO	O	PIT	2Y			
1-SH-59131	Diesel Starting Air Tank 1B4 Outlet Isolation Valve	8770 G 096-2C	D-4	3	B	2	BAL	M	P	LO	O	PIT	2Y			
1-SH-59132	Diesel Starting Air Tank 1B3 Outlet Isolation Valve	8770 G 096-2C	D-3	3	B	2	BAL	M	P	LO	O	PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-SH-59133	Diesel Starting Air Tank 1B2 Outlet Isolation Valve	8770 G 096-2C	D-2	3	B	2	BAL	M	P	LO	O	PIT	2Y			
1-SH-59134	Diesel Starting Air Tank 1B1 Outlet Isolation Valve	8770 G 096-2C	D-1	3	B	2	BAL	M	P	LO	O	PIT	2Y			
1-SR-59-3A	1A EDG Starting Air Receiver Relief Valve	8770 G 096-1C	C-4	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-SR-59-3B	1B EDG Starting Air Receiver Relief Valve	8770 G 096-2C	C-4	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-SR-59-4A	1A EDG Starting Air Receiver Relief Valve	8770 G 096-1C	C-3	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-SR-59-4B	1B EDG Starting Air Receiver Relief Valve	8770 G 096-2C	C-3	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-SR-59-5A	1A EDG Starting Air Receiver Relief Valve	8770 G 096-1C	C-2	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-SR-59-5B	1B EDG Starting Air Receiver Relief Valve	8770 G 096-2C	C-2	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-SR-59-6A	1A EDG Starting Air Receiver Relief Valve	8770 G 096-1C	C-1	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-SR-59-6B	1B EDG Starting Air Receiver Relief Valve	8770 G 096-2C	C-1	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-V59079	1A EDG Air Start Receiver Check Valve	8770 G 096-1C	D-5	3	C	1	CK	SA	A	C	C	CC	3M			
												CO	OP			TP-01
1-V59125	1B EDG Air Start Receiver Check Valve	8770 G 096-2C	D-5	3	C	1	CK	SA	A	C	C	CC	3M			
												CO	OP			TP-01
1-V59156	1A EDG Air Start Receiver Check Valve	8770 G 096-1C	D-5	3	C	1	CK	SA	A	C	C	CC	3M			
												CO	OP			TP-01
1-V59158	1B EDG Air Start Receiver Check Valve	8770 G 096-2C	D-5	3	C	1	CK	SA	A	C	C	CC	3M			
												CO	OP			TP-01
1-V59200	Check Valve Assembly for D/G Engine Governor Air Boosters	8770 G 096-1C	F-1	3	C	0.38	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V59201	Check Valve Assembly for D/G Engine Governor Air Boosters	8770 G 096-1C	F-5	3	C	0.38	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09
1-V59202	Check Valve Assembly for D/G Engine Governor Air Boosters	8770 G 096-2C	F-1	3	C	0.38	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09
1-V59203	Check Valve Assembly for D/G Engine Governor Air Boosters	8770 G 096-2C	F-5	3	C	0.38	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09
1-V59305	EDG 1A2 North Air Start Sequencing Check Valve	8770-G-096-1C	H-4	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
1-V59306	EDG 1A2 South Air Start Sequencing Check Valve	8770-G-096-1C	F-4	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
1-V59307	EDG 1A1 South Air Start Sequencing Check Valve	8770-G-096-1C	F-2	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V59308	EDG 1A1 North Air Start Sequencing Check Valve	8770-G-096-1C	H-2	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
1-V59309	EDG 1B2 North Air Start Sequencing Check Valve	8770-G-096-2C	H-4	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
1-V59310	EDG 1B2 South Air Start Sequencing Check Valve	8770-G-096-2C	F-4	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
1-V59311	EDG 1B1 South Air Start Sequencing Check Valve	8770-G-096-2C	F-2	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
1-V59312	EDG 1B1 North Air Start Sequencing Check Valve	8770-G-096-2C	H-2	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
1-SR-59-1A1	Safety Relief on the Radiator Expansion Tank of the EDG	8770 G 096-1A	D-4	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-SR-59-1A2	Safety Relief on the Radiator Expansion Tank of the EDG	8770 G 096-1B	D-5	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-SR-59-1B1	Safety Relief on the Radiator Expansion Tank of the EDG	8770 G 096-2A	D-4	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-SR-59-1B2	Safety Relief on the Radiator Expansion Tank of the EDG	8770 G 096-2B	D-5	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
1-TCV-59-1A1	EDG 1A1 Engine Water TCV	8770 G 096-1A	D-2	3	B	4	3W	SA	A	C	O/C	TMP	3M			TP-09
1-TCV-59-1A2	EDG 1A2 Engine Water TCV	8770 G 096-1B	E-6	3	B	4	3W	SA	A	C	O/C	TMP	3M			TP-09
1-TCV-59-1B1	EDG 1B1 Engine Water TCV	8770 G 096-2A	D-2	3	B	4	3W	SA	A	C	O/C	TMP	3M			TP-09
1-TCV-59-1B2	EDG 1B2 Engine Water TCV	8770 G 096-2B	E-6	3	B	4	3W	SA	A	C	O/C	TMP	3M			TP-09
1-SE-59-1A	A Fuel Oil Day Tank Inlet Isolation Valve	8770 G 096-1A	G-2	3	B	2	GL	SO	A	C	O/C	FSC	3M			TP-03, TP-09
												ST-C	3M			TP-09
												ST-O	3M			TP-09
1-SE-59-1B	B Fuel Oil Day Tank Inlet Isolation Valve	8770 G 096-2A	G-2	3	B	2	GL	SO	A	C	O/C	FSC	3M			TP-03, TP-09
												ST-C	3M			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	3M			TP-09
1-SH-59161	1A1 Fuel Oil Day Tank Inlet Isolation Valve	8770 G 096-1A	G-2	3	B	2	BAL	M	P	LO	O	PIT	2Y			
1-SH-59164	1B1 Fuel Oil Day Tank Inlet Isolation Valve	8770 G 096-2A	G-2	3	B	2	BAL	M	P	LO	O	PIT	2Y			
1-V17204	1A Diesel Fuel Oil Transfer Pump Discharge Check Valve	8770 G 086-1	B-3	3	C	1.5	CK	SA	A	C	O	CO	3M			TP-09
1-V17205	Diesel Oil Transfer Pump 1A Discharge Isolation Valve	8770 G 086-1	B-3	3	B	1.5	GA	M	A	LO	O/C	ME	2Y			
1-V17207	Diesel Oil Transfer Header Cross-tie Valve	8770 G 086-1	B-3	3	B	2	GA	M	A	LC	O/C	ME	2Y			
1-V17214	1B Diesel Fuel Oil Transfer Pump Discharge Check Valves	8770 G 086-1	D-3	3	C	1.5	CK	SA	A	C	O	CO	3M			TP-09
1-V17215	Diesel Oil Transfer Pump 1B Discharge Isolation Valve	8770 G 086-1	D-3	3	B	1.5	GA	M	A	LO	O/C	ME	2Y			
1-V17217	Diesel Oil Transfer Header Cross-tie Valve	8770 G 086-1	D-3	3	B	2	GA	M	A	LC	O/C	ME	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V17218	Isolation Valve for Diesel Oil to Unit 2 CrossTie	8770 G 086-1	C-3	3	B	2	GA	M	A	LC	O/C	ME	2Y			
1-V59010	Soakback Lube Oil A/C Pump Discharge Check for Diesel 1A1	8770 G 096-1A	B-5	3	C	0.5	CK	SA	A	O	O/C	CC	3M			TP-09
												CO	3M			TP-09
1-V59011	Soakback Lube Oil D/C Pump Discharge Check for Diesel 1A1	8770 G 096-1A	B-4	3	C	0.5	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
1-V59025	Soakback Lube Oil A/C Pump Discharge Check for Diesel 1A2	8770 G 096-1B	G-4	3	C	0.5	CK	SA	A	O	O/C	CC	3M			TP-09
												CO	3M			TP-09
1-V59026	Soakback Lube Oil D/C Pump Discharge Check for Diesel 1A2	8770 G 096-1B	F-4	3	C	0.5	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V59040	Soakback Lube Oil A/C Pump Discharge Check for Diesel 1B1	8770 G 096-2A	B-4	3	C	1	CK	SA	A	O	O/C	CC	3M			TP-09
												CO	3M			TP-09
1-V59041	Soakback Lube Oil D/C Pump Discharge Check for Diesel 1B1	8770 G 096-2A	B-4	3	C	0.5	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
1-V59055	Soakback Lube Oil D/C Pump Discharge Check for Diesel 1B2	8770 G 096-2B	F-4	3	C	0.5	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
1-V59056	Soakback Lube Oil A/C Pump Discharge Check for Diesel 1B2	8770 G 096-2B	G-4	3	C	1	CK	SA	A	O	O/C	CC	3M			TP-09
												CO	3M			TP-09
1-SR-07276	Refueling Cavity Containment Penetration Relief Valve	8770 G 088-2	E-4	2	A/C	0.75	RV	SA	A	C	O/C	LT-J	App J			
												RVT	10Y			TP-08

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-SR-07277	Refueling Cavity Containment Penetration Relief Valve	8770 G 088-2	E-4	2	A/C	0.75	RV	SA	A	C	O/C	LT-J	App J			
												RVT	10Y			TP-08
1-V07170	Refueling Cavity Containment Isolation Valve	8770 G 088-2	F-3	2	A	3	GA	M	P	LC	C	LT-J	App J			
1-V07188	Refueling Cavity Containment Isolation Valve	8770 G 088-2	F-4	2	A	3	GA	M	P	LC	C	LT-J	App J			
1-V07189	Refueling Cavity Containment Isolation Valve	8770 G 088-2	E-5	2	A	3	GA	M	P	LC	C	LT-J	App J			
1-V07206	Refueling Cavity Containment Isolation Valve	8770 G 088-2	E-3	2	A	3	GA	M	P	LC	C	LT-J	App J			
1-HCV-09-7	1-A Main Feedwater Isolation Valves	8770 G 080-3	B-6	2	B	20	GA	AO	A	O	C	PIT	2Y			
												ST-C	CS		CS-12	
1-HCV-09-8	1B Main Feedwater Isolation Valves	8770 G 080-3	C-6	2	B	20	GA	AO	A	O	C	PIT	2Y			
												ST-C	CS		CS-12	

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-MV-09-1	1A Main Feedwater Pump Discharge Valve	8770 G 080-3	G-3	NC	B	20	GA	MO	A	O	C	PIT	2Y			
												ST-C	CS		CS-11	
1-MV-09-10	1B AFW Pump Flow Control Valve	8770 G 080-4	B-6	3	B	4	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-MV-09-11	1C AFW Pump to 1A Steam Generator Flow Control Valve	8770 G 080-4	H-6	3	B	4	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-MV-09-12	1C AFW Pump to 1B Steam Generator Flow Control Valve	8770 G 080-4	F-6	3	B	4	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-MV-09-13	AFW Pumps Discharge Header Cross Connection Valve	8770 G 080-4	D-5	3	B	2.5	GL	MO	A	C	O/C	PIT	2Y			
												ST-O	3M			TP-11
1-MV-09-14	AFW Pumps Discharge Header Cross Connection Valve	8770 G 080-4	C-5	3	B	2.5	GL	MO	A	C	O/C	PIT	2Y			
												ST-O	3M			TP-11
1-MV-09-2	1B Main Feedwater Pump Discharge Valve	8770 G 080-3	G-5	NC	B	20	GA	MO	A	O	C	PIT	2Y			
												ST-C	CS		CS-11	
1-SE-09-843	HCV-09-7 Actuator Train "A" Control Solenoids	8770 G 080-5	B-2	3	B	1	3W	SO	A	Vent	Flow	SE	CS			TP-09
1-SE-09-847	HCV-09-7 Actuator Train "B" Control Solenoids	8770 G 080-5	B-5	3	B	1	3W	SO	A	Vent	Flow	SE	CS			TP-09
1-SE-09-870	HCV-09-8 Actuator Train "B" Control Solenoids	8770 G 080-5	F-2	3	B	1	3W	SO	A	Vent	Flow	SE	CS			TP-09
1-SE-09-874	HCV-09-8 Actuator Train "A" Control Solenoids	8770 G 080-5	F-5	3	B	1	3W	SO	A	Vent	Flow	SE	CS			TP-09
1-SR-09-841	MFIV N2 Accumulator 1A Relief Valve	8770 G 080-5	D-3	3	C	1	RV	SA	A	C	O/C	RVT	10Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-SR-09-868	MFIV N2 Accumulator 1B Relief Valve	8770 G 080-5	H-3	3	C	1	RV	SA	A	C	O/C	RVT	10Y			
1-V09107	1A AFW Pump Discharge Check Valve	8770 G 080-4	E-4	3	C	4	CK	SA	A	C	O	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
1-V09119	1A AFW Supply Header Check Valve	8770 G 080-4	E-7	2	C	4	CK	SA	A	C	O	CCL	1R			TP-01, TP-07
												COF	1R			TP-07
1-V09120	Manual Auxiliary Feedwater Isolation Valve	8770 G 080-4	E-7	2	B	4	GA	M	A	LO	C	ME	2Y			
1-V09123	1B AFW Pump Discharge Check Valve	8770 G 080-4	B-4	3	C	4	CK	SA	A	C	O	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
1-V09135	1B AFW Supply Header Check Valve	8770 G 080-4	B-7	2	C	4	CK	SA	A	C	O	CCL	1R			TP-01, TP-07
												COF	1R			TP-07
1-V09136	Manual Auxiliary Feedwater Isolation Valve	8770 G 080-4	B-7	2	B	4	GA	M	A	LO	C	ME	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V09139	1C AFW Pump Discharge Check Valve	8770 G 080-4	F-4	3	C	6	CK	SA	A	C	O	CCL	2R			TP-01, TP-07
												COF	2R			TP-07
1-V09151	1C AFW Supply to 1A Header Check Valve	8770 G 080-4	H-7	2	C	4	CK	SA	A	C	O	CCL	1R			TP-01, TP-07
												COF	1R			TP-07
1-V09152	Manual Auxiliary Feedwater Isolation Valve	8770 G 080-4	H-7	2	B	4	GA	M	A	LO	C	ME	2Y			
1-V09157	1C AFW Supply to 1B Header Check Valve	8770 G 080-4	F-7	2	C	4	CK	SA	A	C	O	CCL	1R			TP-01, TP-07
												COF	1R			TP-07
1-V09158	Manual Auxiliary Feedwater Isolation Valve	8770 G 080-4	F-7	2	B	4	GA	M	A	LO	C	ME	2Y			
1-V09248	1A Steam Generator Outboard Feedwater Check Valve	8770 G 080-3	B-5	2	C	20	CK	SA	A	O	C	CCD	3R			TP-07
												COD	3R			TP-01, TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V09252	1A Steam Generator Inboard Feedwater Check Valve	8770 G 080-3	B-7	2	C	18	CK	SA	A	O	O/C	CCF	2R			TP-07
												COF	2R			TP-07
1-V09280	1B Steam Generator Outboard Feedwater Check Valve	8770 G 080-3	C-5	2	C	20	CK	SA	A	O	C	CCD	3R			TP-07
												COD	3R			TP-01, TP-07
1-V09294	1B Steam Generator Inboard Feedwater Check Valve	8770 G 080-3	C-7	2	C	18	CK	SA	A	O	O/C	CCF	2R			TP-07
												COF	2R			TP-07
1-V09303	1C AFW Pump Minimum Flow Check Valve	8770 G 080-4	E-3	3	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COU	2R			TP-07
1-V09304	1B AFW Pump Minimum Flow Check Valve	8770 G 080-4	C-3	3	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COU	2R			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V09305	1A AFW Pump Minimum Flow Check Valve	8770 G 080-4	D-3	3	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COU	2R			TP-07
1-V09824	AFWF 1B to SG 1B Chemical Addition Check Valves	8770 G 080-4	A-6	3	C	0.38	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
1-V09825	AFWF 1A to SG 1A Chemical Addition Check Valves	8770 G 080-4	D-6	3	C	0.38	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
1-V09826	AFWF 1C to SG 1B Chemical Addition Check Valves	8770 G 080-4	G-6	3	C	0.38	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
1-V09827	AFWF 1C to SG 1A Chemical Addition Check Valves	8770 G 080-4	E-6	3	C	0.38	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V09828	MFIV Accumulator 1A Outboard Inlet Ck Vlv	8770 G 080-5	D-3	3	C	0.5	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
1-V09829	MFIV Accumulator 1A Inboard Inlet Ck Vlv	8770 G 080-5	D-3	3	C	0.5	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
1-V09831	HCV-09-7 Actuator "A" Train Open Pilot Vlv	8770 G 080-5	B-2	3	B	1	3W	AO	A	Vent	Flow	SE	CS			TP-09
1-V09832	HCV-09-7 Actuator "B" Train Open Pilot Vlv	8770 G 080-5	B-3	3	B	1	3W	AO	A	Vent	Flow	SE	CS			TP-09
1-V09833	HCV-09-7 Actuator "A" Train Close Pilot Vlv	8770 G 080-5	B-4	3	B	1	3W	AO	A	Vent	Flow	SE	CS			TP-09
1-V09834	HCV-09-7 Actuator "B" Train Close Pilot Vlv	8770 G 080-5	B-4	3	B	1	3W	AO	A	Vent	Flow	SE	CS			TP-09
1-V09855	MFIV Accumulator 1B Outboard Inlet Ck Vlv	8770 G 080-5	H-3	3	C	0.5	CK	SA	A	C	C	CCL	2R			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R			TP-01, TP-07
1-V09856	MFIV Accumulator 1B Inboard Inlet Ck Vlv	8770 G 080-5	H-3	3	C	0.5	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
1-V09861	HCV-09-8 Actuator "A" Train Open Pilot Vlv	8770 G 080-5	F-2	3	B	1	3W	AO	A	Vent	Flow	SE	CS			TP-09
1-V09862	HCV-09-8 Actuator "B" Train Open Pilot Vlv	8770 G 080-5	F-3	3	B	1	3W	AO	A	Vent	Flow	SE	CS			TP-09
1-V09863	HCV-09-8 Actuator "A" Train Close Pilot Vlv	8770 G 080-5	F-4	3	B	1	3W	AO	A	Vent	Flow	SE	CS			TP-09
1-V09864	HCV-09-8 Actuator "B" Train Close Pilot Vlv	8770 G 080-5	F-4	3	B	1	3W	AO	A	Vent	Flow	SE	CS			TP-09
1-V12175	Unit 1/2 CST/AFW Suction Cross Connect Valves	8770 G 080-4	B-2	3	B	8	GA	M	A	LC	O/C	ME	2Y			
1-V12177	Unit 1/2 CST/AFW Suction Cross Connect Valves	8770 G 080-4	B-2	3	B	8	GA	M	A	LC	O/C	ME	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V12497	Condensate Storage Tank Outlet Isolation Valve	8770 G 080-4	C-1	3	B	8	GA	M	A	LO	O/C	ME	2Y			
1-V12506	Condensate Storage Tank Outlet Isolation Valve	8770 G 080-4	C-1	3	B	8	GL	M	A	LO	O/C	ME	2Y			
1-FCV-25-1	Containment Purge Isolation Valve	8770 G 878	C-2	2	B	48	BTF	PO	P	LC	C	PIT	2Y			
1-FCV-25-11	A SBVS Cooling Air Isolation Valves	8770 G 879	H-14	2	B	24	BTF	MO	A	C	O/C					
												ST-C	3M			
												ST-O	3M			
1-FCV-25-12	B SBVS Cooling Air Isolation Valves	8770 G 879	J-14	2	B	24	BTF	MO	A	C	O/C					
												PIT	2Y			
												ST-C	3M			
1-FCV-25-13	SBVS Cross Connect Valve	8770 G 879	I-16	2	B	12	BTF	MO	A	O	O					
												PIT	2Y			
												ST-O	3M			



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-FCV-25-14	Control Room Outside Air Intake Isolation Valve	8770 G 879	E-11	3	B	12	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-FCV-25-15	Control Room Outside Air Intake Isolation Valve	8770 G 879	E-11	3	B	12	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-FCV-25-16	Control Room Outside Air Intake Isolation Valve	8770 G 879	E-10	3	B	12	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-FCV-25-17	Control Room Outside Air Intake Isolation Valve	8770 G 879	E-11	3	B	12	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-FCV-25-18	Toilet Room Ventilation Isolation Valve	8770 G 879	A-10	3	B	6	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
1-FCV-25-19	Toilet Room Ventilation Isolation Valve	8770 G 879	A-11	3	B	6	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
1-FCV-25-2	Isolation Valve (Pen 11) for H&V Containment Purge Supply	8770 G 878	C-3	2	A	48	BTF	PO	P	LC	C	LT-J PIT	App J 2Y			
1-FCV-25-20	Hydrogen Purge (P-57) Primary Containment Isolation Valve	8770-G-878	K-7	2	A	3	BAL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-FCV-25-21	Hydrogen Purge (P-57) Secondary Containment Isolation Valve	8770-G-878	K-8	2	A	3	BAL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	3M			
1-FCV-25-24	Kitchen Ventilation Isolation Valve	8770 G 879	B-10	3	B	8	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
1-FCV-25-25	Kitchen Ventilation Isolation Valve	8770 G 879	B-11	3	B	8	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
1-FCV-25-3	Isolation Valve (Pen 11 for H&V Containment Purge Supply	8770 G 878	C-3	2	A	48	BTF	PO	P	LC	C	LT-J PIT	App J 2Y			
1-FCV-25-4	Isolation Valve (Pen 10 for H&V Containment Purge Exhaust	8770 G 878	C-6	2	A	48	BTF	PO	P	LC	C	LT-J PIT	App J 2Y			
1-FCV-25-5	Isolation Valve (Pen 10 for H&V Containment Purge Exhaust	8770 G 878	C-7	2	A	48	BTF	PO	P	LC	C	LT-J PIT	App J 2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-FCV-25-6	Containment Purge Isolation Valve	8770 G 878	C-8	2	B	48	BTF	PO	P	LC	C	PIT	2Y			
1-FCV-25-7	Containment Vacuum Relief Isolation Valve	8770 G 878	C-15	2	A	24	BTF	AO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-FCV-25-8	Containment Vacuum Relief Isolation Valve	8770 G 878	C-15	2	A	24	BTF	AO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V-25-12	Containment Isolation Valve for H2 Purge Make up. (Pen P 56)	8770 G 878	N-8	2	A	3	GA	M	P	LC	C	LT-J	App J			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V-25-16	Containment Isolation Valve for H2 Purge Exhaust Bypass. (P 58)	8770 G 878	M-8	2	A	3	GA	M	P	LC	C	LT-J	App J			
1-V-25-20	Containment Vacuum Relief Check Valve	8770 G 878	C-14	2	A/C	24	CK	SA	A	C	O	CCX	1R			TP-01, TP-07
												COX	1R			TP-07
												LT-J	App J			
												VAC	1R			TP-07
1-V-25-21	Containment Vacuum Relief Check Valve	8770 G 878	C-14	2	A/C	24	CK	SA	A	C	O	CCX	1R			TP-01, TP-07
												COX	1R			TP-07
												LT-J	App J			
												VAC	1R			TP-07
1-V-25-23	1B SBVS Cooling Air Check Valve	8770 G 879	J-14	2	C	24	CK	SA	A	C	O/C	COF	1R			TP-07
												CCV	2R			TP-07
1-V-25-24	1A SBVS Cooling Air Check Valve	8770 G 879	H-14	2	C	24	CK	SA	A	C	O/C	COF	1R			TP-07
												CCV	2R			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V25011	Isolation for Containment H2 Purge Make up Air (Pen P 56)	8770 G 878	N-7	2	A	3	GA	M	P	LC	C	LT-J	App J			
1-V25015	Isolation for Cntmnt H2 Purge Exhaust Bypass HVE 7 (P 58)	8770 G 878	N-7	2	A	3	GA	M	P	LC	C	LT-J	App J			
1-MV-18-1	Isolation Valve for Pen 9 (Instrument Air Supply to RCB)	8770 G 085-2C	H-2	2	A	2	GA	MO	A	O	C	LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-15	
1-SR-18-6A	Shield Building Hatch Door Seal A Relief Valve	8770 G 085-2A	D-2	2	C	3/4x1	RV	SA	A	C	O/C	RVT	10Y			
1-SR-18-6B	Shield Building Hatch Door Seal B Relief Valve	8770 G 085-2A	D-1	2	C	3/4x1	RV	SA	A	C	O/C	RVT	10Y			
1-V18195	Isolation Check Valve for Instrument Air Supply to RCB (Pen P 9)	8770 G 085-2A	E-6	2	A/C	2	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V18279	Shield Bldg Hatch Door Seal A Accumulator Check Valves	8770 G 085-2A	B-2	2	C	0.5	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07
1-V18283	Shield Bldg Hatch Door Seal B Accumulator Check Valves	8770 G 085-2A	A-3	2	C	0.5	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07
1-V18290	Ck Vlv for Inst Air to Air Accumulator for Vacuum Relief FCV-25-7	8770 G 085-2A	H-2	2	C	0.75	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07
1-V18291	Ck Vlv for Inst Air to Air Accumulator for Vacuum Relief FCV-25-7	8770 G 085-2A	H-2	2	C	0.75	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07
1-V18294	Ck Vlv for Inst Air to Air Accumulator for Vacuum Relief FCV-25-8	8770 G 085-2A	G-2	2	C	0.75	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V18295	Ck Vlv for Inst Air to Air Accumulator for Vacuum Relief FCV-25-8	8770 G 085-2A	G-2	2	C	0.75	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07
1-HCV-21-7A	SS-21-1A Debris Discharge Isolation	8770 G 082-2	E-4	3	B	6	BAL	PO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-HCV-21-7B	SS-21-1B Debris Discharge Isolation	8770 G 082-2	E-7	3	B	6	BAL	PO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-MV-21-2	1B Turbine Cooling Water Header Isolation Valve	8770 G 082-2	F-4	3	B	24	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
1-MV-21-3	1A Turbine Cooling Water Header Isolation Valve	8770 G 082-2	G-4	3	B	24	BTF	MO	A	O	C	PIT	2Y			



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
1-SB-21385	Isol. Valve for Emergency Make up to Fuel Pool from SS 21 1A	8770 G 082-2	C-3	3	B	3	BTF	M	A	C	O	ME	2Y			
1-SB-21386	Isol. Valve for Emergency Make up to Fuel Pool from SS 21 1B	8770 G 082-2	C-8	3	B	3	BTF	M	A	C	O	ME	2Y			
1-SB-37-1	Ultimate Heat Sink (UHS Valve)	8770 G 093	C-6	3	B	54	BTF	AO	A	C	O	FSO	3M			
												PIT	2Y			
												ST-O	3M			
1-SB-37-2	Ultimate Heat Sink (UHS Valve)	8770 G 093	C-7	3	B	54	BTF	AO	A	C	O	FSO	3M			
												PIT	2Y			
												ST-O	3M			
1-SE-37-1	UHS Valve SB- 37-1 Air Control Valve	8770 G 093	A-6	3	B	0.5	3W	SO	A	O	C	SD	3M			
1-SE-37-2	UHS Valve SB- 37-2 Air Control Valve	8770 G 093	A-6	3	B	0.5	3W	SO	A	O	C	SD	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-TCV-14-4A	1A CCW Heat Exchanger Temperature Control Valve	8770 G 082-2	A-5	3	B	30	BTF	PO	A	O	O	FSO	3M			TP-03
												ST-O	3M			
1-TCV-14-4B	1B CCW Heat Exchanger Temperature Control Valve	8770 G 082-2	A-6	3	B	30	BTF	PO	A	O	O	FSO	3M			TP-03
												ST-O	3M			
1-V21162	1A ICW Pump Discharge Check Valve	8770 G 082-2	G-5	3	C	30	CK	SA	A	O	O/C	CC	3M			
												CO	3M			
1-V21205	1C ICW Pump Discharge Check Valve	8770 G 082-2	G-6	3	C	30	CK	SA	A	O	O/C	CC	3M			
												CO	3M			
1-V21208	1B ICW Pump Discharge Check Valve	8770 G 082-2	G-7	3	C	30	CK	SA	A	O	O/C	CC	3M			
												CO	3M			
1-V21402	Check Valves for Vacuum Breaker on the 1A CCW Hx	8770 G 082-2	D-4	3	C	2	CK	SA	A	O	O	CCV	2R			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R			TP-07
1-V21403	Check Valves for Vacuum Breaker on the 1B CCW Hx	8770 G 082-2	D-8	3	C	2	CK	SA	A	O	O	CCV	2R			TP-01, TP-07
												COF	2R			TP-07
1-V00101	Isolation for Cntmnt ILRT Press & De Pressurizing (Pen P 54)	8770 G 091-1	B-4	2	A	8	GA	M	P	LC	C	LT-J	App J			
1-V00139	Isolation for Cntmnt ILRT Pressure Sensing (Pen P 52)	8770 G 091-1	D-4	2	A	0.38	GL	M	P	LC	C	LT-J	App J			
1-V00140	Isolation for Cntmnt ILRT Controlled Leakage (Pen P 52D)	8770 G 091-1	E-4	2	A	1	GL	M	P	LC	C	LT-J	App J			
1-V00143	Isolation for Cntmnt ILRT Controlled Leakage (Pen P 52D)	8770 G 091-1	E-4	2	A	1	GL	M	P	LC	C	LT-J	App J			
1-V00144	Isolation for Containment ILRT Pressure Sensing (Pen P 52E)	8770 G 091-1	D-4	2	A	0.5	GL	M	P	LC	C	LT-J	App J			
1-FCV-26-1	Containment Isolation Valve for Pen 52A	8770 G 092-1	B-2	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-FCV-26-2	Containment Isolation Valve for Pen 52A	8770 G 092-1	B-2	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-FCV-26-3	Containment Isolation Valve for Pen 52B	8770 G 092-1	B-3	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-FCV-26-4	Containment Isolation Valve for Pen 52B	8770 G 092-1	B-3	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
1-FCV-26-5	Containment Isolation Valve Pen 52C	8770 G 092-1	B-3	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-FCV-26-6	Containment Isolation Valve for Pen 52C	8770 G 092-1	B-3	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-FSE-27-1	H2 Analyzer A Dome Sample Solenoid Vlv	8770 G 092-1	A-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	3M			
1-FSE-27-10	H2 Analyzer B Outlet CIV Solenoid Vlv	8770 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-FSE-27-11	H2 Analyzer A Outlet CIV Solenoid Vlv	8770 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-FSE-27-2	H2 Analyzer A Pzr 8770 G 092-1 Sample Solenoid Vlv		A-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-FSE-27-3	H2 Analyzer A RCP 1A1 Sample Solenoid Vlv	8770 G 092-1	A-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-FSE-27-4	H2 Analyzer A RCP 1A2 Sample Solenoid Vlv	8770 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-FSE-27-5	H2 Analyzer B Dome Sample Solenoid Vlv	8770 G 092-1	B-7	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-FSE-27-6	H2 Analyzer B RCP 1B2 Sample Solenoid Vlv	8770 G 092-1	A-7	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-FSE-27-7	H2 Analyzer B RCP 1B1 Sample Solenoid Vlv	8770 G 092-1	A-7	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-FSE-27-8	H2 Analyzer A Inlet CIV Solenoid Vlv	8770 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-FSE-27-9	H2 Analyzer B Inlet CIV Solenoid Vlv	8770 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V27101	Containment Isolation Check Valve for the 1A Hydrogen Analyzer	8770 G 092-1	B-6	2	A/C	0.5	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-J	App J			
1-V27102	Containment Isolation Check Valve for the 1B Hydrogen Analyzer	8770 G 092-1	B-6	2	A/C	0.38	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			
1-HCV-08-1A	1A Main Steam Isolation Valve (MSIV)	8770 G 079-1	B-6	2	B/C	34	PCHECK	PO	A	O	C	PIT	2Y			
												ST-C	CS			CS-09
1-HCV-08-1B	1B Main Steam Isolation Valve (MSIV)	8770 G 079-1	E-6	2	B/C	34	PCHECK	PO	A	O	C	PIT	2Y			
												ST-C	CS			CS-09
1-HCV-08-2A	1A Main Steamline Atmospheric Dump Valve	8770 G 079-1	B-4	2	B	6	ANG	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-HCV-08-2B	1B Main Steamline Atmospheric Dump Valve	8770 G 079-1	E-4	2	B	6	ANG	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-MV-08-13	AFW Pump Turbine Steam Supply Valve from 1A S/G	8770 G 079-1	H-4	2	B	3	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-MV-08-14	AFW Pump Turbine Steam Supply Valve from 1B S/G	8770 G 079-1	H-3	2	B	3	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-MV-08-1A	1A MSIV Bypass Valve	8770 G 079-1	B-6	2	B	3	GL	MO	A	C	C	PIT	2Y			
												ST-C	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-MV-08-1B	1B MSIV Bypass Valve	8770 G 079-1	E-6	2	B	3	GL	MO	A	C	C	PIT	2Y			
												ST-C	3M			
1-MV-08-3	1C AFW Turbine Trip Throttle Valve	8770 G 079-1	G-6	2	B	4	GA	MO	A	C	O	PIT	2Y			TP-09
												ST-O	3M			TP-09
1-SE-08-1A1	MSIV HCV-08-1A Closing Solenoid Valve	8770 G 079-7	B-3	3	B	1	PLT	SO	A	C	O	SE	CS			TP-09
1-SE-08-1A2	MSIV HCV-08-1A Closing Solenoid Valve	8770 G 079-7	B-3	3	B	1	PLT	SO	A	C	O	SE	CS			TP-09
1-SE-08-1A3	MSIV HCV-08-1A Closing Solenoid Valve	8770 G 079-7	B-3	3	B	1	PLT	SO	A	C	O	SE	CS			TP-09
1-SE-08-1A4	MSIV HCV-08-1A Closing Solenoid Valve	8770 G 079-7	B-3	3	B	1	PLT	SO	A	C	O	SE	CS			TP-09
1-SE-08-1B1	MSIV HCV-08-1B Closing Solenoid Valve	8770 G 079-7	F-3	3	B	1	PLT	SO	A	C	O	SE	CS			TP-09
1-SE-08-1B2	MSIV HCV-08-1B Closing Solenoid Valve	8770 G 079-7	F-3	3	B	1	PLT	SO	A	C	O	SE	CS			TP-09
1-SE-08-1B3	MSIV HCV-08-1B Closing Solenoid Valve	8770 G 079-7	F-3	3	B	1	PLT	SO	A	C	O	SE	CS			TP-09
1-SE-08-1B4	MSIV HCV-08-1B Closing Solenoid Valve	8770 G 079-7	F-3	3	B	1	PLT	SO	A	C	O	SE	CS			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V08113	MSL A to Aux FW Turb Iso Valve	8770 G 079-1	C-4	2	B	4	GA	M	A	LO	O/C	ME	2Y			
1-V08114	MS Atm Dump 2A Suction Iso Valves	8770 G 079-1	B-4	2	B	8	GA	M	A	O	C	ME	2Y			
1-V08117	Main Steam Isolation Check Valve	8770 G 079-1	B-6	2	C	34	CK	SA	A	O	C	CCD	2R			TP-07
												COD	2R			TP-01, TP-07
1-V08130	AFW Steam Supply from Steam Generator 1A Check Valve	8770 G 079-1	G-4	2	C	4	CK	SA	A	C	O/C	CCD	2R			TP-07
												COD	2R			TP-07
1-V08144	MSL B to Aux FW Turb Iso Valve	8770 G 079-1	E-4	2	B	4	GA	M	A	LO	O/C	ME	2Y			
1-V08145	MS Atm Dump 2B Suction Iso Valves	8770 G 079-1	E-4	2	B	8	GA	M	A	O	C	ME	2Y			
1-V08148	Main Steam Isolation Check Valve	8770 G 079-1	E-6	2	C	34	CK	SA	A	O	C	CCD	2R			TP-07
												COD	2R			TP-01, TP-07
1-V08163	AFW Steam Supply from Steam Generator 1B Check Valve	8770 G 079-1	G-4	2	C	4	CK	SA	A	C	O/C	CCD	2R			TP-07
												COD	2R			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V08372	AFW Steam Supply Bypass Check Valve for MV-08-14	8770 G 079-1	H-4	2	C	0.75	CK	SA	A	O	C	CCF	1R			TP-07
												COF	1R			TP-01, TP-07
1-V08373	AFW Steam Supply Bypass Check Valve for MV-08-13	8770 G 079-1	F-4	2	C	0.75	CK	SA	A	O	C	CCF	1R			TP-07
												COF	1R			TP-01, TP-07
1-V08384	1C AFW Pump Steam Supply Valve MV-08 14 Bypass	8770 G 079-1	H-4	2	B	0.75	GL	M	A	O	C	ME	2Y			
1-V08387	1C AFW Pump Steam Supply Valve MV-08 13 Bypass	8770 G 079-1	F-4	2	B	0.75	GL	M	A	O	C	ME	2Y			
1-V08923	Excess Air Check Valve For HCV-08-1A Actuator Reservoir	8770 G 079-7	C-3	NC	C	0.5	CK	SA	A	C	O	CC	CS			TP-09
												CO	CS			TP-09
1-V08936	Excess Air Check Valve For HCV-08-1B Actuator Reservoir	8770 G 079-7	G-3	NC	C	0.5	CK	SA	A	C	O	CC	CS			TP-09
												CO	CS			TP-09
1-V8201	Main Steam Safety/Relief Valve	8770 G 079-1	B-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8202	Main Steam Safety/Relief Valve	8770 G 079-1	B-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V8203	Main Steam Safety/Relief Valve	8770 G 079-1	B-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8204	Main Steam Safety/Relief Valve	8770 G 079-1	B-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8205	Main Steam Safety/Relief Valve	8770 G 079-1	E-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8206	Main Steam Safety/Relief Valve	8770 G 079-1	D-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8207	Main Steam Safety/Relief Valve	8770 G 079-1	E-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8208	Main Steam Safety/Relief Valve	8770 G 079-1	D-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8209	Main Steam Safety/Relief Valve	8770 G 079-1	B-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8210	Main Steam Safety/Relief Valve	8770 G 079-1	B-6	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8211	Main Steam Safety/Relief Valve	8770 G 079-1	B-6	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8212	Main Steam Safety/Relief Valve	8770 G 079-1	B-6	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8213	Main Steam Safety/Relief Valve	8770 G 079-1	E-5	2	C	6	SV	SA	A	C	O/C	RVT	Y5			



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V8214	Main Steam Safety/Relief Valve	8770 G 079-1	D-6	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8215	Main Steam Safety/Relief Valve	8770 G 079-1	E-6	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-V8216	Main Steam Safety/Relief Valve	8770 G 079-1	D-6	2	C	6	SV	SA	A	C	O/C	RVT	Y5			
1-MV-15-1	Isol. Valve for Pen 7 (Primary Make up Water Supply to RCB)	8770 G 084-1C	D-6	2	A	2	GA	MO	A	C	C	LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-V15328	Check Valve for PMW Service to Containment Bldg (P 7)	8770 G 084-1C	D-5	2	A/C	2	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			
1-PCV-1100E	Pressurizer Spray Valve	8770 G 078-110A	F-7	1	B	3	ANG	AO	A	C	C	FSC	CS		CS-01	TP-03
												PIT	2Y			
												ST-C	CS		CS-01	

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-PCV-1100F	Pressurizer Spray Valve	8770 G 078-110A	G-7	1	B	3	ANG	AO	A	C	C	FSC	CS		CS-01	TP-03
												PIT	2Y			
												ST-C	CS		CS-01	
1-V1200	Pressurizer Safety/Relief Valve	8770 G 078-110A	C-4	1	C	3	RV	SA	A	C	O/C	RVT	Y5			
1-V1201	Pressurizer Safety/Relief Valve	8770 G 078-110A	C-4	1	C	3	RV	SA	A	C	O/C	RVT	Y5			
1-V1202	Pressurizer Safety/Relief Valve	8770 G 078-110A	C-5	1	C	3	RV	SA	A	C	O/C	RVT	Y5			
1-V1402	Pressurizer Power Operated Relief Valve (PORV)	8770 G 078-110A	C-2	1	B	2.5x4.0	GL	SO	A	C	O/C	FSC	RR			TP-03
												PIT	2Y			
												ST-O	RR			TP-11
1-V1403	PORV Block Valve	8770 G 078-110A	B-3	1	B	2.5	GA	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			TP-11
1-V1404	Pressurizer Power Operated Relief Valve (PORV)	8770 G 078-110A	B-2	1	B	2.5x4.0	GL	SO	A	C	O/C	FSC	RR			TP-03
												PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	RR			TP-11
1-V1405	PORV Block Valve	8770 G 078- 110A	C-3	1	B	2.5	GA	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			TP-11
1-V1441	Reactor Coolant Gas Vent Valve	8770 G 078- 110A	F-1	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
1-V1442	Reactor Coolant Gas Vent Valve	8770 G 078- 110A	G-1	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
1-V1443	Reactor Coolant Gas Vent Valve	8770 G 078- 110A	D-2	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	CS		CS-02	
1-V1444	Reactor Coolant Gas Vent Valve	8770 G 078- 110A	D-2	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
1-V1445	Reactor Coolant Gas Vent Valve	8770 G 078- 110A	E-1	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
1-V1446	Reactor Coolant Gas Vent Valve	8770 G 078- 110A	E-1	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
1-V1449	Reactor Coolant Gas Vent Valve	8770 G 078- 110A	G-2	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	CS	CS-02		
												ST-O	CS	CS-02		
1-SH-18797	Containment Isolation Valve (Inner) for Service Air Supply to RCB	8770 G 085-1A	F-2	2	A	1	BAL	M	P	LC	C	LT-J	App J			
1-SH-18798	Containment Isolation Valve (Outer) for Service Air Supply to RCB	8770 G 085-1A	E-2	2	A	1	BAL	M	P	LC	C	LT-J	App J			
1-V18794	Isolation Valve (Outer) for Service Air Supply to RCB (Pen P 8)	8770 G 085-1A	F-4	2	A	2	GL	M	P	LC	C	LT-J	App J			
1-V18796	Isolation Valve (Inner) for Service Air Supply to RCB (Pen P 8)	8770 G 085-1A	F-4	2	A	2	GL	M	P	LC	C	LT-J	App J			
1-V5200	Isolation Valve from RCS Hot Leg Loop A to the Sample System	8770 G 078-150	B-2	2	A	0.38	GL	AO	A	C	C	FSC	3M	TP-03		
												LT-J	App J			
												PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
1-V5201	Isolation from the Pressurizer Surge Line to the Sample System	8770 G 078-150	C-2	2	A	0.38	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-V5202	Isolation from the Pzr Steam Space to the Sample System	8770 G 078-150	D-2	2	A	0.38	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-V5203	Isolation Valve from RCS Hot Leg Loop A to the Sample System	8770 G 078-150	B-2	2	A	0.38	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
1-V5204	Isolation from the Pressurizer Surge Line to the Sample System	8770 G 078-150	C-2	2	A	0.38	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-V5205	Isolation Valve from the Pressurizer Steam Space to the Sample	8770 G 078-150	D-2	2	A	0.38	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-FCV-2161	Boric Acid Makeup Pumps Disch to VCT Stop Valve	8770 G 078-121B	G-5	2	B	1	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
1-FCV-23-3	1A Steam Generator Blowdown Isolation	8770 G 086-1	C-6	2	B	2	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-FCV-23-5	1B Steam Generator Blowdown Isolation	8770 G 086-1	C-6	2	B	2	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-FCV-23-7	1A Steam Generator Blowdown Isolation	8770 G 086-1	C-7	2	B	0.5	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-FCV-23-9	1B Steam Generator Blowdown Isolation	8770 G 086-1	C-7	2	B	0.5	GL	AO	A	O	C	FSC	3M			TP-03



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	3M			
1-FCV-03-1E	SI Tank Sample Header Isolation Valve	8770 G 078-131A	G-4	2	A	0.38	NEEDLE	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-FCV-03-1F	SI Tank Sample Header Isolation Valve	8770 G 078-131A	G-4	2	A	0.38	NEEDLE	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-FCV-3306	LPSI Header Temperature Control Valve	8770 G 078-130B	G-5	2	B	10	GL	AO	A	LO	O/C	PIT	2Y			
												ST-C	3M			TP-11
1-HCV-3615	1A2 LPSI Cold Leg Injection Isolation Valve	8770 G 078-131A	A-2	2	B	6	GL	MO	A	C	O/C	PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
												ST-O	3M			
1-HCV-3616	1B HPSI 1A2 Cold Leg Injection Isolation Valve	8770 G 078- 131A	B-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-HCV-3617	1A HPSI 1A2 Cold Leg Injection Isolation Valve	8770 G 078- 131A	B-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-HCV-3618	SI Check Valve Leakage Test Isolation Valve	8770 G 078- 131B	D-5	1	B	1	GL	AO	A	C	C	FSC	3M			
												PIT	2Y			
												ST-C	3M			
1-HCV-3625	1A1 LPSI Cold Leg Injection Isolation Valve	8770 G 078- 131A	C-2	2	B	6	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	3M			
1-HCV-3626	1B HPSI 1A1 Cold Leg Injection Isolation Valve	8770 G 078- 131A	C-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-HCV-3627	1A HPSI 1A1 Cold Leg Injection Isolation Valve	8770 G 078- 131A	D-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-HCV-3628	SI Check Valve Leakage Test Isolation Valve	8770 G 078- 131B	D-2	1	B	1	GL	AO	A	C	C	FSC	3M			
												PIT	2Y			
												ST-C	3M			
1-HCV-3635	1B2 LPSI Cold Leg Injection Isolation Valve	8770 G 078- 131A	E-2	2	B	6	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-HCV-3636	1B HPSI 1B1 Cold Leg Injection Isolation Valve	8770 G 078- 131A	F-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-HCV-3637	1A HPSI 1B1 Cold Leg Injection Isolation Valve	8770 G 078- 131A	F-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-HCV-3638	SI Check Valve Leakage Test Isolation Valve	8770 G 078- 131B	H-2	1	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-HCV-3645	1B2 LPSI Cold Leg Injection Isolation Valve	8770 G 078- 131A	G-2	2	B	6	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-HCV-3646	1B HPSI 1B2 Cold Leg Injection Isolation Valve	8770 G 078-131A	H-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-HCV-3647	1A HPSI 1B2 Cold Leg Injection Isolation Valve	8770 G 078-131A	H-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-HCV-3648	SI Check Valve Leakage Test Isolation Valve	8770 G 078-131B	H-5	1	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
1-HCV-3657	Shutdown Cooling to LPSI Injection Header Control Valve	8770 G 078-130B	F-6	2	B	12	GL	AO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
1-MV-03-1A	A Train Shutdown Cooling Warm up Valve	8770 G 078-131A	C-2	2	B	2	GL	MO	A	LC	O/C	PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
												ST-O	3M			
1-MV-03-1B	B Train Shutdown Cooling Warm up Valve	8770 G 078- 131A	E-3	2	B	2	GA	MO	A	LC	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-MV-03-2	LPSI Header Flow Control Valve Bypass	8770 G 078- 130B	H-5	2	B	10	GL	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M	TP-11		
1-MV-07-2A	'A' Train SI Pump Containment Sump Suction Valve	8770 G 088-2	G-3	2	B	24	BTF	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-MV-07-2B	'B' Train SI Pump Containment Sump Suction Valve	8770 G 088-2	H-3	2	B	24	BTF	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	3M			
1-SR-07-1A	A Train Safety Injection Pumps Suction Header Relief Valve	8770 G 078-130B	F-2	2	C	1.5x2.5	RV	SA	A	C	O/C	RVT	10Y			
1-SR-07-1B	B Train Safety Injection Pumps Suction Header Relief Valve	8770 G 078-130B	G-2	2	C	1.5x2.5	RV	SA	A	C	O/C	RVT	10Y			
1-V03920	Isolation Valve For SIT Outlet Drain to VCT	8770 G 078-130B	B-4	3	B	2	GL	M	A	C	O/C	ME	2Y			
1-V07000	1A LPSI Pump Suction Check Valve	8770 G 078-130B	F-2	2	C	14	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
1-V07001	1B LPSI Pump Suction Check Valves	8770 G 078-130B	G-2	2	C	14	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
1-V07009	SI Tank Drain/Test Line to RWT (P 41)	8770 G 078-130B	A-4	2	A	2	GA	M	A	LC	O/C	LT-J	App J			
												ME	2Y			
1-V07172	1B SI Pump Containment Sump Suction Check Valve	8770 G 088-2	H-2	2	C	24	CK	SA	A	C	O	CCD	4R			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COD	4R			TP-07
1-V07174	1A SI Pump Containment Sump Suction Check Valve	8770 G 088-2	G-2	2	C	24	CK	SA	A	C	O	CCD	4R			TP-01, TP-07
												COD	4R			TP-07
1-V3101	1A HPSI Minimum Flow CV	8770 G 078- 130A	B-4	2	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COU	2R			TP-07
1-V3103	1B HPSI Minimum Flow CV	8770 G 078- 130A	F-4	2	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COU	2R			TP-07
1-V3104	1A LPSI Minimum Flow Check Valve	8770 G 078- 130B	F-4	2	C	2	CK	SA	A	C	O/C	CCU	2R			TP-07
												COU	2R			TP-07
1-V3105	1B LPSI Minimum Flow Check Valve	8770 G 078- 130B	F-4	2	C	2	CK	SA	A	C	O/C	CCU	2R			TP-07
												COU	2R			TP-07
1-V3106	1A LPSI Pump Discharge Check Valve	8770 G 078- 130B	F-4	2	C	10	CK	SA	A	C	O/C	CCF	2R			TP-07
												COF	2R			TP-07



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3107	1B LPSI Pump Discharge Check Valve	8770 G 078- 130B	G-4	2	C	10	CK	SA	A	C	O/C	CCF	2R			TP-07
												COF	2R			TP-07
1-V3113	HPSI 1A2 Cold Leg Injection Check Valve	8770 G 078- 131A	B-3	1	A/C	2	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	1R			TP-07
												LT-S	PIV			
1-V3114	LPSI 1A2 Cold Leg Injection Check Valve	8770 G 078- 131A	A-3	1	A/C	6	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	1R			TP-07
												LT-S	PIV			
1-V3123	HPSI 1A1 Cold Leg Injection Check Valve	8770 G 078- 131A	C-3	1	A/C	2	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	1R			TP-07
												LT-S	PIV			
1-V3124	LPSI 1A1 Cold Leg Injection Check Valve	8770 G 078- 131A	C-3	1	A/C	6	CK	SA	A	C	O/C	CCL	PIV			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3133	HPSI 1B1 Cold Leg Injection Check Valve	8770 G 078- 131A	F-3	1	A/C	2	CK	SA	A	C	O/C	COF	1R			TP-07
												LT-S	PIV			
												CCL	PIV			TP-07
1-V3134	LPSI 1B1 Cold Leg Injection Check Valve	8770 G 078- 131A	E-3	1	A/C	6	CK	SA	A	C	O/C	COF	1R			TP-07
												LT-S	PIV			
												CCL	PIV			TP-07
1-V3143	HPSI 1B2 Cold Leg Injection Check Valve	8770 G 078- 131A	H-3	1	A/C	2	CK	SA	A	C	O/C	COF	1R			TP-07
												LT-S	PIV			
												CCL	PIV			TP-07
1-V3144	LPSI 1B2 Cold Leg Injection Check Valve	8770 G 078- 131A	G-3	1	A/C	6	CK	SA	A	C	O/C	COF	1R			TP-07
												CCL	PIV			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-S	PIV			
1-V3206	1A LPSI Pump Discharge Valve	8770 G 078- 130B	F-4	2	B	10	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V3207	1B LPSI Pump Discharge Valve	8770 G 078- 130B	G-4	2	B	10	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V3211	1A2 Safety Injection Tank Relief Valve	8770 G 078- 131B	A-6	2	C	1x1	RV	SA	A	C	O/C	RVT	10Y			
1-V3215	1A2 Safety Injection Tank Discharge Check Valve	8770 G 078- 131B	C-6	2	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07
												CP	2R			TP-07
												LT-S	PIV			
1-V3217	1A2 SI Header Inboard Check Valve	8770 G 078- 131B	E-7	1	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07
												CP	2R			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-S	PIV			
1-V3221	1A1 Safety Injection Tank Relief Valve	8770 G 078- 131B	A-3	2	C	1x1	RV	SA	A	C	O/C	RVT	10Y			
1-V3225	1A1 Safety Injection Tank Discharge Check Valve	8770 G 078- 131B	C-3	2	A/C	12	CK	SA	A	C	O/C	CCL	PIV			
												CP	2R			
												LT-S	PIV			
1-V3227	1A1 SI Header Inboard Check Valve	8770 G 078- 131B	D-4	1	A/C	12	CK	SA	A	C	O/C	CCL	PIV			
												CP	2R			
												LT-S	PIV			
1-V3231	1B1 Safety Injection Tank Relief Valve	8770 G 078- 131B	E-3	2	C	1x1	RV	SA	A	C	O/C	RVT	10Y			
1-V3235	1B1 Safety Injection Tank Discharge Check Valve	8770 G 078- 131B	G-3	2	A/C	12	CK	SA	A	C	O/C	CCL	PIV			
												CP	2R			
												LT-S	PIV			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3237	1B1 SI Header Inboard Check Valve	8770 G 078-131B	H-4	1	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07
												CP	2R			TP-07
												LT-S	PIV			
1-V3241	1B2 Safety Injection Tank Relief Valve	8770 G 078-131B	E-6	2	C	1x1	RV	SA	A	C	O/C	RVT	10Y			
1-V3245	1B2 Safety Injection Tank Discharge Check Valve	8770 G 078-131B	G-6	2	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07
												CP	2R			TP-07
												LT-S	PIV			
1-V3247	1B2 SI Header Inboard Check Valve	8770 G 078-131B	H-7	1	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07
												CP	2R			TP-07
												LT-S	PIV			
1-V3401	1A HPSI Pump Suction Check Valve	8770 G 078-130A	C-2	2	C	6	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3407	Safety Injection Tank Recirculation Relief Valve	8770 G 078-130B	A-4	3	C	0.5x1	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-V3410	1B HPSI Pump Suction Check Valve	8770 G 078-130A	G-2	2	C	8	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
1-V3412	HPSI Relief Valve	8770 G 078-130A	F-6	2	C	1	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-V3414	1B HPSI Pump Discharge Stop Check Valve	8770 G 078-130A	G-4	2	C	3	CK	SA	A	C	O/C	CCF	2R			TP-07
												COF	2R			TP-07
1-V3417	HPSI Relief Valves	8770 G 078-130A	C-6	2	C	1	RV	SA	A	C	O/C	RVT	10Y			
1-V3427	1A HPSI Pump Discharge Stop Check Valve	8770 G 078-130A	C-4	2	C	3	CK	SA	A	C	O/C	CCF	2R			TP-07
												COF	2R			TP-07
1-V3430	1B Shutdown Cooling Heat Exchanger Relief Valve	8770 G 078-130A	F-2	2	C	1	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-V3431	1A Shutdown Cooling Heat Exchanger Relief Valve	8770 G 078-130A	B-2	2	C	1	RV	SA	A	C	O/C	RVT	10Y			TP-08

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3432	1B LPSI Pump Suction Isolation Valve	8770 G 078-130B	G-2	2	B	14	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			TP-11
1-V3439	Low Pressure Safety Injection Header Relief Valve	8770 G 078-130B	H-7	2	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
1-V3444	1A LPSI Pump Suction Isolation Valve	8770 G 078-130B	F-2	2	B	14	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			TP-11
1-V3452	1A LPSI Pumps Discharge to Shutdown Cooling Valve	8770 G 078-130B	C-2	2	B	12	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
1-V3453	1B LPSI Pumps Discharge to Shutdown Cooling Valve	8770 G 078-130B	D-2	2	B	12	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
1-V3456	1A Shutdown Cooling to LPSI Injection Header Valve	8770 G 078-130B	D-7	2	B	10	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3457	1B Shutdown Cooling to LPSI Injection Header Valve	8770 G 078-130B	E-7	2	B	10	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
1-V3463	SI Tank Drain/Test Line to RWT (P 41)	8770 G 078-130B	A-4	2	A	2	GA	M	A	LC	O/C	LT-J	App J			
												ME	2Y			
1-V3466	SI Check Valve Leakage Test Line Relief Valve	8770 G 078-130B	A-3	3	C	2x3	RV	SA	A	C	O/C	RVT	10Y			
1-V3468	1B Shutdown Cooling Suction Relief Valve	8770 G 078-131A	D-2	2	C	2x3	RV	SA	A	C	O/C	RVT	10Y			
1-V3469	1B Shutdown Cooling Suction Isolation Valve Relief Valve	8770 G 078-131A	D-6	1	C	1x1	RV	SA	A	C	O/C	RVT	Y5			
1-V3480	1A Shutdown Cooling Suction Isolation Valve	8770 G 078-131A	D-7	1	A	10	GA	MO	A	LC	O/C	LT-S	2Y			
												PIT	2Y			
												ST-C	CS		CS-08	
												ST-O	CS		CS-08	



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3481	1A Shutdown Cooling Suction Isolation Valve	8770 G 078-131A	D-5	1	A	10	GA	MO	A	LC	O/C	LT-S	2Y			
												PIT	2Y			
												ST-C	CS		CS-08	
												ST-O	CS		CS-08	
1-V3482	1A Shutdown Cooling Suction Isolation Valve Relief Valve	8770 G 078-131A	D-6	1	C	1x1	RV	SA	A	C	O/C	RVT	Y5			
1-V3483	1A Shutdown Cooling Suction Relief Valve	8770 G 078-131A	D-2	2	C	2x3	RV	SA	A	C	O/C	RVT	10Y			
1-V3611	1A2 SI Tank Drain/Fill Valve	8770 G 078-131B	C-6	2	B	1	GL	AO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V3612	1A2 SI Tank Nitrogen Supply Valve	8770 G 078-131B	B-6	2	B	0.5	GL	AO	P	C	C	PIT	2Y			
1-V3613	1A2 SI Tank Nitrogen Vent Valve	8770 G 078-131B	B-5	2	B	0.5	GL	AO	P	C	C	PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3614	1A2 SI Tank Outlet Isolation Valve	8770 G 078-131B	C-6	1	B	12	GA	MO	P	LO	O	PIT	2Y			
1-V3621	1A1 SI Tank Drain/Fill Valve	8770 G 078-131B	C-3	2	B	1	GL	AO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V3622	1A1 SI Tank Nitrogen Supply Valve	8770 G 078-131B	B-3	2	B	0.5	GL	AO	P	C	C	PIT	2Y			
1-V3623	1A1 SI Tank Nitrogen Vent Valve	8770 G 078-131B	B-2	2	B	0.5	GL	AO	P	C	C	PIT	2Y			
1-V3624	1A1 SI Tank Outlet Isolation Valve	8770 G 078-131B	C-3	1	B	12	GA	MO	P	LO	O	PIT	2Y			
1-V3631	1B1 SI Tank Drain/Fill Valve	8770 G 078-131B	G-3	2	B	1	GL	AO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V3632	1B1 SI Tank Nitrogen Supply Valve	8770 G 078-131B	F-3	2	B	0.5	GL	AO	P	C	C	PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3633	1B1 SI Tank Nitrogen Vent Valve	8770 G 078-131B	F-2	2	B	0.5	GL	AO	P	C	C	PIT	2Y			
1-V3634	1B1 SI Tank Outlet Isolation Valve	8770 G 078-131B	G-3	1	B	12	GA	MO	P	LO	O	PIT	2Y			
1-V3641	1B2 SI Tank Drain/Fill Valve	8770 G 078-131B	G-6	2	B	1	GL	AO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V3642	1B2 SI Tank Nitrogen Supply Valve	8770 G 078-131B	F-6	2	B	0.5	GL	AO	P	C	C	PIT	2Y			
1-V3643	1B2 SI Tank Nitrogen Vent Valve	8770 G 078-131B	F-5	2	B	0.5	GL	AO	P	C	C	PIT	2Y			
1-V3644	1B2 SI Tank Outlet Isolation Valve	8770 G 078-131B	G-6	1	B	12	GA	MO	P	LO	O	PIT	2Y			
1-V3651	1B Shutdown Cooling Suction Isolation Valve	8770 G 078-131A	E-5	1	A	10	GA	MO	A	LC	O/C	LT-S	2Y			
												PIT	2Y			
												ST-C	CS		CS-08	

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	CS		CS-08	
1-V3652	1B Shutdown Cooling Suction Isolation Valve	8770 G 078- 131A	E-7	1	A	10	GA	MO	A	LC	O/C	LT-S	2Y			
												PIT	2Y			
												ST-C	CS		CS-08	
												ST-O	CS		CS-08	
1-V3654	1B HPSI Pump Discharge Valve	8770 G 078- 130A	G-5	2	B	6	GA	MO	P	LO	O	PIT	2Y			
1-V3656	1A HPSI Pump Discharge Valve	8770 G 078- 130A	D-5	2	B	6	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			TP-11
1-V3659	Isolation Valve for SI Pump Mini Flow Recirc to RWT	8770 G 078- 130B	A-7	2	B	3	GA	MO	A	O	O/C	PIT	2Y			
												ST-C	CS		CS-07	TP-11
1-V3660	Isolation Valve for SI Pump Mini Flow Recirc to RWT	8770 G 078- 130B	B-7	2	B	3	GA	MO	A	O	O/C	PIT	2Y			
												ST-C	CS		CS-07	TP-11

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V3661	SI Tank Drain/Test Line to Containment Drain Header	8770 G 078-130B	B-3	3	B	1	GA	AO	P	C	C	PIT	2Y			
1-V3662	Containment Spray to B HPSI Suction Cross Tie	8770 G 078-130A	F-2	2	B	4	GA	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-V3663	Containment Spray to A HPSI Suction Cross Tie	8770 G 078-130A	B-2	2	B	4	GA	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
1-LCV-07-11A	Containment Sump Pump Discharge Valve	8770 G 088-2	G-2	2	A	2	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-LCV-07-11B	Containment Sump Pump Discharge Valve	8770 G 088-2	G-3	2	A	2	GL	AO	A	C	C	FSC	3M			TP-03

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-SR-07278	Cntmnt Sump Pump Discharge Cntmnt Pen Relief Valve	8770 G 088-2	F-4	NC	C	0.75	RV	SA	A	C	O	RVT	10Y			TP-08
1-V6301	Cntmnt Isolation for Rx Drain Tank Pump Suction (Pen P 43)	8770 G 078- 160A	G-4	2	A	3	DIA	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-V6302	Cntmnt Isolation Valve for Rx Drain Tank Pump Suction (P 43)	8770 G 078- 160A	G-5	2	A	3	DIA	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V6554	Cntmnt Isolation for QT / RDT Vent to Gas Surge Tank (P 31)	8770 G 078-163A	B-6	2	A	1	DIA	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-V6555	Cntmnt Isolation for QT / RDT Vent to Gas Surge Tank (P 31)	8770 G 078-163A	B-5	2	A	1	DIA	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
1-V6741	Containment Isolation Valve for Nitrogen Supply to the RCB	8770 G 078-163B	F-5	2	A	0.5	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
1-V6779	Cntmnt Isolation Check Valve for N2 Supply to the RCB (P 14)	8770 G 078-163B	F-4	2	A/C	1	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			
1-V081022	Nitrogen Supply to HCV-08-1A Actuator	8770-G-079-7	D-3	3	A/C	1/2	CK	SA	A	C	C	CCL	1R			TP-7
												COF	1R			TP-1, TP-7
1-V081024	Nitrogen Supply to HCV-08-1B Actuator	8770-G-079-7	H-3	3	A/C	1/2	CK	SA	A	C	C	CCL	1R			TP-7
												COF	1R			TP-1, TP-7
2-HCV-14-1	RCP Cooling Water Containment Isolation Valve	2998 G 083-2	D-6	2	A	8	BTF	AO	A	O	C	FSC	CS		CS-13	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-13	
2-HCV-14-10	Nonessential Header Isolation Valve	2998 G 083-1	F-6	3	B	16	BTF	PO	A	O	C	FSC	3M			TP-03



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	3M			
2-HCV-14-2	RCP Cooling Water Containment Isolation Valve	2998 G 083-2	C-1	2	A	8	BTF	AO	A	O	C	FSC	CS		CS-13	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-13	
2-HCV-14-3A	2A Shutdown Heat Exchanger Cooling Water Return Valve	2998 G 083-1	H-1	3	B	14	BTF	AO	A	C	O	FSO	3M			TP-03
												PIT	2Y			
												ST-O	3M			
2-HCV-14-3B	2B Shutdown Heat Exchanger Cooling Water Return Valve	2998 G 083-1	H-2	3	B	14	BTF	AO	A	C	O	FSO	3M			TP-03
												PIT	2Y			
												ST-O	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-HCV-14-6	RCP Cooling Water Containment Isolation Valve	2998 G 083-2	D-2	2	A	8	BTF	AO	A	O	C	FSC	CS		CS-13	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-13	
2-HCV-14-7	RCP Cooling Water Containment Isolation Valve	2998 G 083-2	D-6	2	A	8	BTF	AO	A	O	C	FSC	CS		CS-13	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-13	
2-HCV-14-8A	Nonessential Header Isolation Valve	2998 G 083-1	E-5	3	B	16	BTF	PO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-HCV-14-8B	Nonessential Header Isolation Valve	2998 G 083-1	E-5	3	B	16	BTF	PO	A	O	C	FSC	3M			TP-03

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	3M			
2-HCV-14-9	Nonessential Header Isolation Valve	2998 G 083-1	F-6	3	B	16	BTF	PO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-MV-14-1	2C CCW Pump Discharge Stop Valve	2998 G 083-1	D-6	3	B	24	BTF	MO	P	O	C	PIT	2Y			
2-MV-14-10	2A Containment Cooling Units CCW Isolation Valve	2998 G 083-1	B-2	2	B	8	BTF	MO	P	O	O	PIT	2Y			
2-MV-14-11	2B Containment Cooling Units CCW Isolation Valve	2998 G 083-1	B-4	2	B	8	BTF	MO	P	O	O	PIT	2Y			
2-MV-14-12	2B Containment Cooling Units CCW Isolation Valve	2998 G 083-1	B-3	2	B	8	BTF	MO	P	O	O	PIT	2Y			
2-MV-14-13	2C Containment Cooling Units CCW Isolation Valve	2998 G 083-1	B-1	2	B	8	BTF	MO	P	O	O	PIT	2Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-MV-14-14	2C Containment Cooling Units CCW Isolation Valve	2998 G 083-1	B-1	2	B	8	BTF	MO	P	O	O	PIT	2Y			
2-MV-14-15	2D Containment Cooling Units CCW Isolation Valve	2998 G 083-1	B-2	2	B	8	BTF	MO	P	O	O	PIT	2Y			
2-MV-14-16	2D Containment Cooling Units CCW Isolation Valve	2998 G 083-1	B-2	2	B	8	BTF	MO	P	O	O	PIT	2Y			
2-MV-14-17	CCW to Fuel Pool Heat Exchangers Inlet Isolation	2998 G 083-1	E-4	3	B	12	BTF	MO	A	SYS	C	PIT	2Y			
												ST-C	3M			
2-MV-14-18	CCW to Fuel Pool Heat Exchangers Inlet Isolation	2998 G 083-1	E-4	3	B	12	BTF	MO	A	SYS	C	PIT	2Y			
												ST-C	3M			
2-MV-14-19	Fuel Pool Heat Exchanger Outlet to CCW Header	2998 G 083-1	E-4	3	B	12	BTF	MO	P	O/C	N/A	PIT	2Y			
												ST-C	3M			
2-MV-14-20	Fuel Pool Heat Exchanger Outlet to CCW Header	2998 G 083-1	E-4	3	B	12	BTF	MO	P	O/C	N/A	PIT	2Y			
												ST-C	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-MV-14-2	2C CCW Pump Discharge Stop Valve	2998 G 083-1	D-6	3	B	24	BTF	MO	P	C	C	PIT	2Y			
2-MV-14-3	2C CCW Pump Suction Stop Valve	2998 G 083-1	F-6	3	B	24	BTF	MO	P	O	C	PIT	2Y			
2-MV-14-4	2C CCW Pump Suction Stop Valve	2998 G 083-1	F-6	3	B	24	BTF	MO	P	C	C	PIT	2Y			
2-MV-14-9	2A Containment Cooling Units CCW Isolation Valve	2998 G 083-1	B-3	2	B	8	BTF	MO	P	O	O	PIT	2Y			
2-SE-26-1	Solenoid valve for CCW to Radiation Monitor	2998 G 083-1	C-7	3	B	1	GL	SO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-SE-26-2	Solenoid valve for CCW to Radiation Monitor	2998 G 083-1	D-7	3	B	1	GL	SO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-SR14636	Component Cooling Water Header Supply Thermal Relief Valve	2998 G 083-2	D-6	2	A/C	0.75	RV	SA	A	C	O/C	LT-J	App J			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												RVT	10Y			TP-08
2-SR14637	Component Cooling Water Header Return Thermal Relief Valve	2998 G 083-2	D-2	2	A/C	0.75	RV	SA	A	C	O/C	LT-J	App J			
												RVT	10Y			TP-08
2-SR14673	Safety Relief Valve For HVA/ACC-3A CCW Inlet	2998 G 083-2	F-7	2	C	0.75x1	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR14676	Safety Relief Valve For HVA/ACC-3B CCW Inlet	2998 G 083-2	G-7	2	C	0.75x1	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR14679	Safety Relief Valve For HVA/ACC-3C CCW Inlet	2998 G 083-2	G-7	2	C	0.75x1	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR14307	2A Containment Cooling Unit CCW Relief Valve	2998 G 083-1	A-3	2	C	1x1.5	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR14318	2B Containment Cooling Unit CCW Relief Valve	2998 G 083-1	A-3	2	C	1x1.5	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR14329	2C Containment Cooling Unit CCW Relief Valve	2998 G 083-1	A-1	2	C	1x1.5	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR14342	2D Containment Cooling Unit CCW Relief Valve	2998 G 083-1	A-2	2	C	1x1.5	RV	SA	A	C	O/C	RVT	10Y			TP-08

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SR14350	2A Shutdown Heat Exchanger CCW Shell Side Relief Valve	2998 G 083-1	G-1	3	C	1x1.5	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR14359	2B Shutdown Heat Exchanger CCW Shell Side Relief Valve	2998 G 083-1	G-2	3	C	1x1.5	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V14143	2A CCW Pump Discharge Check Valve	2998 G 083-1	D-6	3	C	20	CK	SA	A	O	O/C	CCF	3M			
												COF	3M			
2-V14147	2B CCW Pump Discharge Check Valve	2998 G 083-1	D-7	3	C	20	CK	SA	A	O	O/C	CCF	3M			
												COF	3M			
2-V14151	2C CCW Pump Discharge Check Valve	2998 G 083-1	D-6	3	C	20	CK	SA	A	O	O/C	CCF	3M			
												COF	3M			
2-V14601	Check Valve for RS 26 2 for the CCW Pump	2998 G 083-1	F-7	3	C	1	CK	SA	A	O	C	CC	3M			
												CO	3M			TP-01
2-V14602	Check Valve for RS 26 1 for the CCW Pump	2998 G 083-1	F-7	3	C	1	CK	SA	A	O	C	CC	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												CO	3M			TP-01
2-FCV-07-1A	Containment Spray Discharge Header Control Valve	2998 G 088-2	C-3	2	B	12	BTf	AO	A	C	O	FSO	3M			TP-03
												PIT	2Y			
												ST-O	3M			
2-FCV-07-1B	Containment Spray Discharge Header Control Valve	2998 G 088-2	D-3	2	B	12	BTf	AO	A	C	O	FSO	3M			TP-03
												PIT	2Y			
												ST-O	3M			
2-MV-07-1A	RWT Outlet Stop Valve	2998 G 088-1	E-5	2	B	24	BTf	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			TP-11
2-MV-07-1B	RWT Outlet Stop Valve	2998 G 088-1	E-5	2	B	24	BTf	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			TP-11
2-MV-07-3	Containment Spray Discharge Header Stop Valve	2998 G 088-2	C-2	2	B	12	GA	MO	A	O	O	PIT	2Y			



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
2-MV-07-4	Containment Spray Discharge Header Stop Valve	2998 G 088-2	D-2	2	B	12	GA	MO	A	O	O	PIT	2Y			
												ST-C	3M			
2-SE-07-3A	Hydrazine Injection Isolation Valve	2998 G 088-1	G-3	2	B	0.5	GL	SO	A	C	O	FSO	3M			TP-03
												PIT	2Y			
												ST-O	3M			
2-SE-07-3B	Hydrazine Injection Isolation Valve	2998 G 088-1	H-3	2	B	0.5	GL	SO	A	C	O	FSO	3M			TP-03
												PIT	2Y			
												ST-O	3M			
2-SR-07-1C	Hydrazine Storage Tank Safety/Relief Valve	2998 G 088-1	E-2	2	C	1x1	RV	SA	A	C	O/C	RVT	10Y			
2-SR-07-2A	Hydrazine Injection Header Safety/Relief Valve	2998 G 088-1	F-3	2	C	0.5x0.5	RV	SA	A	C	O/C	RVT	10Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SR-07-2B	Hydrazine Injection Header Safety/Relief Valve	2998 G 088-1	G-3	2	C	0.5x0.5	RV	SA	A	C	O/C	RVT	10Y			
2-V07119	RWT Outlet Check Valve	2998 G 088-1	E-6	2	C	24	CK	SA	A	C	O/C	CCU	2R			TP-07
												CP	2R			TP-07
2-V07120	RWT Outlet Check Valve	2998 G 088-1	E-6	2	C	24	CK	SA	A	C	O/C	CCU	2R			TP-07
												CP	2R			TP-07
2-V07129	2B Containment Spray Pump Discharge Check Valve	2998 G 088-1	H-6	2	C	12	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V07130	2B Containment Spray Pump Discharge Isolation Valve	2998 G 088-1	H-6	2	B	12	GA	M	A	LO	O/C	ME	2Y			
2-V07143	2A Containment Spray Pump Discharge Check Valve	2998 G 088-1	G-6	2	C	12	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V07145	2A Containment Spray Pump Discharge Isolation Valve	2998 G 088-1	G-6	2	B	12	GA	M	A	LO	O/C	ME	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V07192	2B Containment Spray Discharge Header Check Valve	2998 G 088-2	C-4	2	C	10	CK	SA	A	C	O	CCD	5R			TP-01, TP-07
												COD	5R			TP-07
2-V07193	2A Containment Spray Discharge Header Check Valve	2998 G 088-2	C-4	2	C	10	CK	SA	A	C	O	CCD	5R			TP-01, TP-07
												COD	5R			TP-07
2-V07231	Hydrazine Storage Tank Vacuum Breaker	2998 G 088-1	E-2	2	C	2	CK	SA	A	C	O	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
2-V07232	Hydrazine Storage Tank Vacuum Breaker	2998 G 088-1	E-2	2	C	2	CK	SA	A	C	O	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
2-V07256	2A Hydrazine Injection Check Valve	2998 G 088-1	G-3	2	C	0.5	CK	SA	A	C	O/C	CCR	2R			TP-07
												COF	2R			TP-07
2-V07258	2B Hydrazine Injection Check Valve	2998 G 088-1	H-3	2	C	0.5	CK	SA	A	C	O/C	CCR	2R			TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R			TP-07
2-V07412	Hydrazine Pump Recirculation Line Check Valve	2998 G 088-1	F-3	2	C	0.5	CK	SA	A	C	O	CCR	2R			TP-01, TP-07
												COF	2R			TP-07
2-V29431	Hydrazine Storage Tank Nitrogen Check Valve	2998 G 088-1	D-2	2	C	0.5	CK	SA	A	C	C	CCR	2R			TP-07
												COF	2R			TP-01, TP-07
2-V29432	Hydrazine Storage Tank Nitrogen Check Valve	2998 G 088-1	D-1	2	C	0.5	CK	SA	A	C	C	CCR	2R			TP-07
												COF	2R			TP-01, TP-07
2-FCV-2210Y	Boric Acid Makeup Pumps Disch. to VCT Stop Valve	2998 G 078-121B	F-6	2	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-SE-02-1	Charging To RCS Cold Legs Stop Valve	2998 G 078-122	D-6	1	B	2	GL	SO	A	O	O/C	FSO	3M			TP-03

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SE-02-2	Charging to RCS Cold Legs Stop Valve	2998 G 078-122	C-6	1	B	2	GL	SO	A	O	O/C	FSO	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SE-02-3	Auxiliary Pressurizer Spray Isolation Valve	2998 G 078-122	E-6	1	B	2	GL	SO	A	C	O/C	FSC	CS		CS-03	TP-03
												PIT	2Y			
												ST-C	CS		CS-03	
												ST-O	CS		CS-03	
2-SE-02-4	Auxiliary Pressurizer Spray Isolation Valve	2998 G 078-122	E-6	1	B	2	GL	SO	A	C	O/C	FSC	CS		CS-03	TP-03
												PIT	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	CS		CS-03	
												ST-O	CS		CS-03	
2-SR-02123	CVCS Reactor Coolant Pump Bleed-off Thermal Relief Valve	2998 G 078-121A	C-2	2	A/C	1	RV	SA	A	C	O/C	LT-J	App J			
												RVT	10Y			TP-08
2-V2115	VCT Safety / Relief Valve	2998 G 078-121A	E-4	3	C	4x6	RV	SA	A	C	O/C	RVT	10Y			
2-V2118	VCT Discharge Header Check Valve	2998 G 078-121A	E-5	2	C	4	CK	SA	A	O	O/C	CCU	2R			TP-07
												COF	2R			TP-07
2-V2167	2C Charging Pump Discharge CV	2998 G 078-122	C-3	2	C	2	CK	SA	A	SYS	O/C	CCL	3M			
												COF	3M			
2-V2168	2B Charging Pump Discharge CV	2998 G 078-122	E-3	2	C	2	CK	SA	A	SYS	O/C	CCL	3M			
												COF	3M			
2-V2169	2A Charging Pump Discharge CV	2998 G 078-122	G-3	2	C	2	CK	SA	A	SYS	O/C	CCL	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	3M			
2-V02146	Zinc Inj Disch Check Valve	2998 G 078-121A	D-6	2	C	0.5	CK	SA	A	O	C	COF	2R			
												CCF	2R			
2-V2177	Boric Acid Makeup Pump Disch. to Charging Pump Suction	2998 G 078- 121B	H-5	2	C	3	CK	SA	A	C	O	CCU	2R			
												COF	2R			
2-V2190	Boric Acid Gravity Feed Check Valve	2998 G 078- 121B	G-2	2	C	3	CK	SA	A	C	O	CCU	2R			
												COF	2R			
2-V2191	RWT to Charging Pump Suction Check Valve	2998 G 078- 121A	E-6	2	C	3	CK	SA	A	C	O/C	CCU	2R			
												COF	2R			
2-V2311	Chg Pump Common Suction Hdr. Relief Valve	2998 G 078- 121A	F-5	2	C	0.5	RV	SA	A	C	O/C	RVT	10Y			
2-V2318	2B Charging Pump Suction Safety/Relief Valve	2998 G 078-122	D-2	2	C	0.5X1. 5	RV	SA	A	C	O/C	RVT	10Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V2321	2A Charging Pump Suction Safety/Relief Valve	2998 G 078-122	F-2	2	C	0.5X1.5	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V2324	2A Charging Pump Discharge Safety/Relief Valve	2998 G 078-122	F-3	2	C	1.5X2	RV	SA	A	C	O/C	RVT	10Y			
2-V2325	2B Charging Pump Discharge Safety/Relief Valve	2998 G 078-122	D-2	2	C	1.5X2	RV	SA	A	C	O/C	RVT	10Y			
2-V2326	2C Charging Pump Discharge Safety/Relief Valve	2998 G 078-122	B-2	2	C	1.5X2	RV	SA	A	C	O/C	RVT	10Y			
2-V2338	CVCS to HPSI Auxiliary Header Isolation Valve	2998 G 078-122	C-3	2	B	2	GA	M	A	LO	O/C	ME	2Y			
2-V2340	Charging Pump Discharge To Aux HPSI Isolation Valve	2998 G 078-122	A-3	2	B	2	GL	M	A	C	O/C	ME	2Y			
2-V2429	Charging Line Isolation Valve	2998 G 078-122	B-4	2	B	2	GA	M	A	LO	O/C	ME	2Y			
2-V2431	Auxiliary Pressurizer Spray Check Valve	2998 G 078-122	E-6	1	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V2432	Charging To 2B1 RCS Cold Leg Check Valve	2998 G 078-122	D-6	1	C	2	CK	SA	A	O	O	CCU	2R			TP-01, TP-07



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R			TP-07
2-V2433	Charging to 2A2 RCS Cold Leg Check Valve	2998 G 078-122	C-6	1	C	2	CK	SA	A	O	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V2435	SE 02 02 Bypass Safety/Relief Valve	2998 G 078-122	C-6	1	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V2440	Charging Line To Aux. HPSI Header Check Valve	2998 G 078-122	A-3	2	C	2	CK	SA	A	C	O	CCU	2R			TP-01
												COF	2R			TP-07
2-V2443	2B Boric Acid Makeup Pump Discharge Check Valve	2998 G 078- 121B	G-4	2	C	3	CK	SA	A	C	O/C	CCF	2R			TP-07
												COF	2R			TP-07
2-V2444	2A Boric Acid Makeup Pump Discharge Check Valve	2998 G 078- 121B	F-4	2	C	3	CK	SA	A	C	O/C	CCF	2R			TP-07
												COF	2R			TP-07
2-V2462	Charging Header Check Valve	2998 G 078-122	B-5	2	C	2	CK	SA	A	O	O	CCU	2R			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R	TP-07		
2-V2501	VCT Discharge Isolation Valve	2998 G 078-121A	D-5	2	B	4	GA	MO	A	O	O/C	PIT	2Y			
												ST-C	CS	CS-05		
												ST-O	CS	CS-05		
2-V2504	RWT To Charging Pump Suction Isolation Valve	2998 G 078-121A	F-6	2	B	3	GA	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-V2505	RCP Seal Water Return Valve	2998 G 078-121A	C-3	2	A	0.75	GL	AO	A	O	C	FSC	CS	CS-06		TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS	CS-06		
2-V2508	Boric Acid Gravity Feed Isolation Valve	2998 G 078-121B	F-3	2	B	3	GA	MO	A	C	O	PIT	2Y			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V2509	Boric Acid Gravity Feed Isolation Valve	2998 G 078-121B	F-2	2	B	3	GA	MO	A	C	O	PIT	2Y			
												ST-O	3M			
2-V2514	Boric Acid Makeup Pump Disch. To Charging Pump Suction	2998 G 078-121B	H-5	2	B	3	GA	MO	A	C	O	PIT	2Y			
												ST-O	3M			
2-V2515	Letdown Isolation Valve	2998 G 078-122	G-7	1	B	2	GL	AO	A	O	C	FSC	CS		CS-04	TP-03
												PIT	2Y			
												ST-C	CS		CS-04	
2-V2516	Letdown Isolation Valve	2998 G 078-122	G-6	1	A	2	GL	AO	A	O	C	FSC	CS		CS-04	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-04	
2-V2522	Letdown Containment Isolation Valve	2998 G 078-120	C-2	2	A	2	GL	AO	A	O	C	FSC	CS		CS-04	TP-03

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-04	
2-V2523	Charging Header Isolation Valve	2998 G 078-122	B-5	2	B	2	GL	AO	A	LO	O/C	PIT	2Y			
												ST-C	CS		CS-04	TP-11
2-V2524	RCP Seal Water Return Valve	2998 G 078-121A	C-2	2	A	0.75	GL	AO	A	O	C	FSC	CS			
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-06	
2-V2525	BAMT and PMW to Charging Pump Suction, Boron Load	2998 G 078-121A	F-4	3	B	4	GA	MO	A	C	C	PIT	2Y			
												ST-C	3M			
2-V2526	Boric Acid Makeup Pumps Disch. to Charging Pumps	2998 G 078-121A	E-6	2	C	4	CK	SA	A	C	O	CCU	2R			
																TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R	TP-07		
2-V2531	Safety Relief Valve for Letdown to Hold up Tank	2998 G 078-120	C-6	3	C	2x3	RV	SA	A	C	O/C	RVT	10Y			
2-V2553	2C Charging Pump Recirculation Valve	2998 G 078-122	C-3	2	B	2	GL	MO	A	O	C	PIT	2Y			
												ST-C	3M			
2-V2554	2B Charging Pump Recirculation Valve	2998 G 078-122	E-3	2	B	2	GL	MO	A	O	C	PIT	2Y			
												ST-C	3M			
2-V2555	2A Charging Pump Recirculation Valve	2998 G 078-122	H-3	2	B	2	GL	MO	A	O	C	PIT	2Y			
												ST-C	3M			
2-V2556	Check Valve For VCT Inlet From Charging Pumps Recirc	2998 G 078-121	B-4	3	C	2	CK	SA	A	C	C	CC	3M	TP-05, TP-07		
												CO	3M	TP-05, TP-07		
2-V2588	2C Charging Pump Suction Safety/Relief Valve	2998 G 078-122	B-1	2	C	0.5X1. 5	RV	SA	A	C	O/C	RVT	10Y	TP-08		

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V2621	PMW/BAM Supply to VCT Valve	2998 G 078-121A	C-4	3	B	3	GA	M	A	O	C	ME	2Y			
2-V2650	2A Boric Acid Makeup Pump Recirc. Control Valve	2998 G 078-121B	H-4	2	B	1	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-V2651	2B Boric Acid Makeup Pump Recirc. Control Valve	2998 G 078-121B	D-4	2	B	1	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-V2674	VCT Outlet Check Valve	2998 G 078-121A	D-5	3	C	4	CK	SA	A	O	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-FCV-59-1A1	2A EDG Starting Air Control Valve	2998 G 096-1C	H-2	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
2-FCV-59-1B1	2B EDG Starting Air Control Valve	2998 G 096-2C	F-4	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
2-FCV-59-2A1	2A EDG Starting Air Control Valve	2998 G 096-1C	H-4	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-FCV-59-2B1	2B EDG Starting Air Control Valve	2998 G 096-2C	F-2	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
2-FCV-59-3A1	2A EDG Starting Air Control Valve	2998 G 096-1C	F-4	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
2-FCV-59-3B1	2B EDG Starting Air Control Valve	2998 G 096-2C	H-4	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
2-FCV-59-4A1	2A EDG Starting Air Control Valve	2998 G 096-1C	F-2	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
2-FCV-59-4B1	2B EDG Starting Air Control Valve	2998 G 096-2C	H-2	3	B	1.5	GA	AO	A	C	O	ST-O	2Y			TP-09
2-SE-59-3A	2A EDG Starting Air Control Valve Pilot Valve	2998 G 096-1C	G-3	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
2-SE-59-3B	2B EDG Starting Air Control Valve Pilot Valve	2998 G 096-2C	G-3	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
2-SE-59-4A	2A EDG Starting Air Control Valve Pilot Valve	2998 G 096-1C	E-3	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
2-SE-59-4B	2B EDG Starting Air Control Valve Pilot Valve	2998 G 096-2C	E-3	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
2-SE-59-5A	2A EDG Starting Air Control Valve Pilot Valve	2998 G 096-1C	G-4	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
2-SE-59-5B	2B EDG Starting Air Control Valve Pilot Valve	2998 G 096-2C	G-4	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
2-SE-59-6A	2A EDG Starting Air Control Valve Pilot Valve	2998 G 096-1C	E-4	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SE-59-6B	2B EDG Starting Air Control Valve Pilot Valve	2998 G 096-2C	E-4	3	B	0.5	GL	SO	A	C	O	ST-O	2Y			TP-09
2-SR-59-3A	2A EDG Starting Air Receiver Relief Valve	2998 G 096-1C	B-5	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
2-SR-59-3B	2B EDG Starting Air Receiver Relief Valve	2998 G 096-2C	B-5	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
2-SR-59-4A	2A EDG Starting Air Receiver Relief Valve	2998 G 096-1C	B-4	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
2-SR-59-4B	2B EDG Starting Air Receiver Relief Valve	2998 G 096-2C	B-4	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
2-SR-59-5A	2A EDG Starting Air Receiver Relief Valve	2998 G 096-1C	B-3	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
2-SR-59-5B	2B EDG Starting Air Receiver Relief Valve	2998 G 096-2C	G-4	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
2-SR-59-6A	2A EDG Starting Air Receiver Relief Valve	2998 G 096-1C	B-2	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
2-SR-59-6B	2B EDG Starting Air Receiver Relief Valve	2998 G 096-2C	E-4	3	C	0.75	RV	SA	A	C	O/C	RVT	10Y			
2-V59156	2A EDG Air Start Receiver Check Valve	2998 G 096-1C	B-5	3	C	1.25	CK	SA	A	C	C	CC	3M			
												CO	OP			TP-01



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V59158	2A EDG Air Start Receiver Check Valve	2998 G 096-1C	B-3	3	C	1.25	CK	SA	A	C	C	CC	3M			TP-01
												CO	OP			
2-V59159	2A EDG Air Start Receiver Check Valve	2998 G 096-1C	B-2	3	C	1.25	CK	SA	A	C	C	CC	3M			TP-01
												CO	OP			
2-V59183	EDG 2A1 North Air Start Sequencing Check Valve	2998 G 096-1C	G-2	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
2-V59187	EDG 2A1 South Air Start Sequencing Check Valve	2998 G 096-1C	E-2	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
2-V59191	EDG 2A2 North Air Start Sequencing Check Valve	2998 G 096-1C	G-4	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
2-V59192	Check Valve for D/G Engine Governor Air Booster	2998 G 096-1C	E-2	3	C	0.25	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09
2-V59193	Check Valve for D/G Engine Governor Air Booster	2998 G 096-1C	E-2	3	C	0.25	CK	SA	A	C	O/C	CC	2Y			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												CO	2Y			TP-09
2-V59197	EDG 2A2 South Air Start Sequencing Check Valve	2998 G 096-1C	E-4	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
2-V59198	Check Valve for D/G Engine Governor Air Booster	2998 G 096-1C	E-5	3	C	0.25	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09
2-V59199	Check Valve for D/G Engine Governor Air Booster	2998 G 096-1C	E-5	3	C	0.25	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09
2-V59203	2B EDG Air Start Receiver Check Valve	2998 G 096-2C	B-5	3	C	1.25	CK	SA	A	C	C	CC	3M			
												CO	OP			TP-01
2-V59204	2B EDG Air Start Receiver Check Valve	2998 G 096-2C	B-4	3	C	1.25	CK	SA	A	C	C	CC	3M			
												CO	OP			TP-01
2-V59205	2B EDG Air Start Receiver Check Valve	2998 G 096-2C	B-3	3	C	1.25	CK	SA	A	C	C	CC	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												CO	OP			TP-01
2-V59206	2B EDG Air Start Receiver Check Valve	2998 G 096-2C	B-2	3	C	1.25	CK	SA	A	C	C	CC	3M			
												CO	OP			TP-01
2-V59231	EDG 2B1 South Air Start Sequencing Check Valve	2998 G 096-2C	G-2	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
2-V59235	EDG 2B1 North Air Start Sequencing Check Valve	2998 G 096-2C	E-2	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
2-V59236	2A EDG Air Start Receiver Check Valve	2998 G 096-1C	B-4	3	C	1.25	CK	SA	A	C	C	CC	3M			
												CO	OP			TP-01
2-V59239	EDG 2B2 North Air Start Sequencing Check Valve	2998 G 096-2C	G-4	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
2-V59240	Check Valve for D/G Engine Governor Air Boosters	2998 G 096-2C	E-2	3	C	0.25	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V59241	Check Valve for D/G Engine Governor Air Boosters	2998 G 096-2C	E-2	3	C	0.25	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09
2-V59245	EDG 2B2 South Air Start Sequencing Check Valve	2998 G 096-2C	E-4	3	C	0.25	CK	SA	A	C	C	CC	2Y			TP-09
2-V59246	Check Valve for D/G Engine Governor Air Boosters	2998 G 096-2C	E-5	3	C	0.25	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09
2-V59247	Check Valve for D/G Engine Governor Air Boosters	2998 G 096-2C	E-5	3	C	0.25	CK	SA	A	C	O/C	CC	2Y			TP-09
												CO	2Y			TP-09
2-SR-59-1A1	Safety Relief Valve for the D/G Radiator Expansion Tank	2998 G 096-1A	C-5	3	C	1.25	RV	SA	A	C	O/C	RVT	10Y			
2-SR-59-1A2	Safety Relief Valve for the D/G Radiator Expansion Tank	2998 G 096-1B	F-2	3	C	1.25	RV	SA	A	C	O/C	RVT	10Y			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SR-59-1B1	Safety Relief Valve for the D/G Radiator Expansion Tank	2998 G 096-2A	B-5	3	C	1.25	RV	SA	A	C	O/C	RVT	10Y			
2-SR-59-1B2	Safety Relief Valve for the D/G Radiator Expansion Tank	2998 G 096-2B	F-2	3	C	1.25	RV	SA	A	C	O/C	RVT	10Y			
2-TCV-59-1A1	EDG Engine Water TCV	2998 G 096-1A	E-6	3	C	6	3W	SA	A	C	O/C	TMP	3M			TP-09
2-TCV-59-1A2	EDG Engine Water TCV	2998 G 096-1B	E-2	3	C	4	3W	SA	A	C	O/C	TMP	3M			TP-09
2-TCV-59-1B1	EDG Engine Water TCV	2998 G 096-2A	E-6	3	C	6	3W	SA	A	C	O/C	TMP	3M			TP-09
2-TCV-59-1B2	EDG Engine Water TCV	2998 G 096-2B	E-2	3	C	4	3W	SA	A	C	O/C	TMP	3M			TP-09
2-SE-59-1A1	Fuel Oil Day Tank Inlet Isolation Valve	2998 G 096-1A	B-5	3	B	1.5	GL	SO	A	C	O/C	FSC	3M			TP-03, TP-09
												ST-C	3M			TP-09
												ST-O	3M			TP-09
2-SE-59-1A2	Fuel Oil Day Tank Inlet Isolation Valve	2998 G 096-1B	H-2	3	B	1.5	GL	SO	A	C	O/C	FSC	3M			TP-03, TP-09
												ST-C	3M			TP-09
												ST-O	3M			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SE-59-1B1	Fuel Oil Day Tank Inlet Isolation Valve	2998 G 096-2A	B-5	3	B	1.5	GL	SO	A	C	O/C	FSC	3M			TP-03, TP-09
												ST-C	3M			TP-09
												ST-O	3M			TP-09
2-SE-59-1B2	Fuel Oil Day Tank Inlet Isolation Valve	2998 G 096-2B	H-2	3	B	1.5	GL	SO	A	C	O/C	FSC	3M			TP-03, TP-09
												ST-C	3M			TP-09
												ST-O	3M			TP-09
2-SR-17221	2A Diesel Oil Transfer Pump Relief Valve	2998 G 086-1	B-3	3	C	0.75X1	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR-17222	2B Diesel Oil Transfer Pump Relief Valve	2998 G 086-1	C-3	3	C	0.75X1	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V17204	2A Diesel Fuel Oil Transfer Pump Discharge Check Valve	2998 G 086-1	B-3	3	C	1.5	CK	SA	A	C	O	CO	3M			TP-09
2-V17207	Diesel Oil Transfer Pump Discharge Cross tie Isolation	2998 G 086-1	B-3	3	B	2	GL	M	A	LC	O/C	ME	2Y			
2-V17214	2B Diesel Oil Transfer Pump Discharge Check Valve	2998 G 086-1	D-3	3	C	1.5	CK	SA	A	C	O	CO	3M			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V17217	Diesel Oil Transfer Pump Discharge Cross tie Isolation	2998 G 086-1	D-3	3	B	2	GL	M	A	LC	O/C	ME	2Y			
2-V17218	Unit 1/2 Diesel Oil Transfer Pumps Discharge Cross tie	2998 G 086-1	C-3	3	B	2	GL	M	A	LC	O	ME	2Y			
2-V59002	Check Valve for Diesel Oil from Day Tank	2998 G 096-1A	B-4	3	C	1.5	CK	SA	A	C	O	CO	3M			TP-09
2-V59005	Check Valve for Electric Motor Driven Diesel Oil Priming	2998 G 096-1A	B-3	3	C	0.75	CK	SA	A	O	O	CO	3M			TP-09
2-V59062	Check Valve for Diesel Oil from Day Tank	2998 G 096-1B	G-4	3	C	1.5	CK	SA	A	C	O	CO	3M			TP-09
2-V59078	Check Valve for Diesel Oil from Day Tank	2998 G 096-2A	B-4	3	C	1.5	CK	SA	A	C	O	CO	3M			TP-09
2-V59081	Check Valve for Electric Motor Driven Diesel Oil Priming	2998 G 096-2A	B-3	3	C	0.75	CK	SA	A	O	O	CO	3M			TP-09
2-V59116	Check Valve for Diesel Oil from Day Tank	2998 G 096-2B	G-4	3	C	1.5	CK	SA	A	C	O	CO	3M			TP-09
2-V59119	Check Valve for Electric Motor Driven Diesel Oil Priming	2998 G 096-2B	H-5	3	C	0.75	CK	SA	A	O	O	CO	3M			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V59121	Check Valve for Electric Motor-Driven Diesel Oil Priming	2998 G 096-1B	H-5	3	C	0.75	CK	SA	A	O	O	CO	3M			TP-09
2-V59333	Fuel Oil Priming Pump Relief Check Valve	2998 G 096-1A	B-3	3	B	0.75	CK	SA	A	C	C	CC	3M			TP-09
2-V59334	Fuel Oil Priming Pump Relief Check Valve	2998 G 096-1B	F-5	3	B	0.75	CK	SA	A	C	C	CC	3M			TP-09
2-V59335	Fuel Oil Priming Pump Relief Check Valve	2998 G 096-2A	B-3	3	B	0.75	CK	SA	A	C	C	CC	3M			TP-09
2-V59336	Fuel Oil Priming Pump Relief Check Valve	2998 G 096-2B	F-5	3	B	0.75	CK	SA	A	C	C	CC	3M			TP-09
2-V59010	Soakback Lube Oil A/C Pump Discharge Check for Diesel 2A1	2998 G 096-1A	G-5	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59011	Soakback Lube Oil D/C Pump Discharge Check for Diesel 2A1	2998 G 096-1A	G-5	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59017	Turbo Lube Oil D/C Pump Discharge Check for Diesel 2A1	2998 G 096-1A	G-4	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												CO	3M			TP-09
2-V59021	Turbo Lube Oil A/C Pump Discharge Check for Diesel 2A1	2998 G 096-1A	G-3	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59025	Soakback Lube Oil A/C Pump Discharge Check for Diesel 2A2	2998 G 096-1B	B-5	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59026	Soakback Lube Oil D/C Pump Discharge Check for Diesel 2A2	2998 G 096-1B	B-4	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59040	Soakback Lube Oil A/C Pump Discharge Check for Diesel 2B1	2998 G 096-2A	G-5	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59041	Soakback Lube Oil D/C Pump Discharge Check for Diesel 2B1	2998 G 096-2A	G-5	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V59048	Turbo Lube Oil D/C Pump Discharge Check for Diesel 2A2	2998 G 096-1B	B-3	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59051	Turbo Lube Oil A/C Pump Discharge Check for Diesel 2A2	2998 G 096-1B	B-3	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59055	Soakback Lube Oil D/C Pump Discharge Check for Diesel 2B2	2998 G 096-2B	B-4	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59056	Soakback Lube Oil A/C Pump Discharge Check for Diesel 2B2	2998 G 096-2B	B-5	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59066	Check Valve for Standby Lube Oil to D/G Engine	2998 G 096-1B	F-5	3	C	0.75	CK	SA	A	O	O/C	CC	3M			TP-09
												CO	3M			TP-09

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V59089	Turbo Lube Oil A/C Pump Discharge Check for Diesel 2B1	2998 G 096-2A	G-3	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59127	Turbo Lube Oil A/C Pump Discharge Check for Diesel 2B2	2998 G 096-2B	B-3	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59165	Turbo Lube Oil D/C Pump Discharge Check for Diesel 2B1	2998 G 096-2B	B-3	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59194	Check Valve for Standby Lube Oil to D/G Engine	2998 G 096-2B	F-5	3	C	0.75	CK	SA	A	O	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59213	Check Valve for Standby Lube Oil to D/G Engine	2998 G 096-2A	C-3	3	C	0.75	CK	SA	A	O	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-V59219	Turbo Lube Oil D/C Pump Discharge Check for Diesel 2B2	2998 G 096-2A	G-4	3	C	1	CK	SA	A	C	O/C	CC	3M			TP-09

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												CO	3M			TP-09
2-V59232	Check Valve for Standby Lube Oil to D/G Engine	2998 G 096-1A	C-3	3	C	0.75	CK	SA	A	O	O/C	CC	3M			TP-09
												CO	3M			TP-09
2-SR-07475	Containment Spray Rx Cavity Purification Supply Thermal Relief	2998 G 088-2	E-4	2	A/C	0.75	RV	SA	A	C	O/C	LT-J	App J			
												RVT	10Y			TP-08
2-SR-07476	Containment Spray Rx Cavity Purification Supply Thermal Relief	2998 G 088-2	E-4	2	A/C	0.75	RV	SA	A	C	O/C	LT-J	App J			
												RVT	10Y			TP-08
2-V07170	Refueling Cavity Containment Isolation Valve (PEN P 47)	2998 G 088-2	E-3	2	A	3	GA	M	P	LC	C	LT-J	App J			
2-V07188	Refueling Cavity Containment Isolation Valve (PEN P 47)	2998 G 088-2	E-4	2	A	3	GA	M	P	LC	C	LT-J	App J			
2-V07189	Refueling Cavity Containment Isolation Valve (PEN P 47)	2998 G 088-2	E-4	2	A	3	GA	M	P	LC	C	LT-J	App J			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V07206	Refueling Cavity Containment Isolation Valve (PEN P 47)	2998 G 088-2	E-3	2	A	3	GA	M	P	LC	C	LT-J	App J			
2-CHKVLV-1A	MFW Header Isolation Valve HCV-09-1A Air Supply Check Valve	2998 9695	F-3	NC	C	0.5	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
2-CHKVLV-1B	MFW Header Isolation Valve HCV-09-1B Air Supply Check Valve	2998 9695	F-3	NC	C	0.5	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
2-CHKVLV-2A	MFW Header Isolation Valve HCV-09-2A Air Supply Check Valve	2998 9695	F-3	NC	C	0.5	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
2-CHKVLV-2B	MFW Header Isolation Valve HCV-09-2B Air Supply Check Valve	2998 9695	F-3	NC	C	0.5	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-HCV-09-1A	Main Feedwater Block Valve	2998 G 080-2A	B-5	2	B	20	GA	PO	A	O	C	PIT	2Y			
												ST-C	CS		CS-12	
2-HCV-09-1B	Main Feedwater Block Valve	2998 G 080-2A	B-5	2	B	20	GA	PO	A	O	C	PIT	2Y			
												ST-C	CS		CS-12	
2-HCV-09-2A	Main Feedwater Block Valve	2998 G 080-2A	C-5	2	B	20	GA	PO	A	O	C	PIT	2Y			
												ST-C	CS		CS-12	
2-HCV-09-2B	Main Feedwater Block Valve	2998 G 080-2A	C-5	2	B	20	GA	PO	A	O	C	PIT	2Y			
												ST-C	CS		CS-12	
2-MV-09-10	2B AFW Flow Control Valve	2998 G 080-2B	D-6	2	B	4	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-MV-09-11	2C AFW Flow Control Valve	2998 G 080-2B	F-6	2	B	4	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-MV-09-12	2C AFW Flow Control Valve	2998 G 080-2B	G-6	2	B	4	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-MV-09-13	AFW Pumps Discharge Header Cross Connection Valve	2998 G 080-2B	C-5	3	B	2.5	GA	MO	P	C	C	PIT	2Y			
2-MV-09-14	AFW Pumps Discharge Header Cross Connection Valve	2998 G 080-2B	D-5	3	B	2.5	GA	MO	P	C	C	PIT	2Y			
2-MV-09-9	2A AFW Flow Control Valve	2998 G 080-2B	B-6	2	B	4	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SE-09-2	AFW Pump Discharge Valve	2998 G 080-2B	B-5	3	B	4	GL	SO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SE-09-3	AFW Pump Discharge Valve	2998 G 080-2B	D-5	3	B	4	GL	SO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SE-09-4	AFW Pump Discharge Valve	2998 G 080-2B	F-5	3	B	4	GL	SO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SE-09-5	AFW Pump Discharge Valve	2998 G 080-2B	G-5	3	B	4	GL	SO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-V09107	2A AFW Pump Discharge Check Valve	2998 G 080-2B	B-4	3	C	4	CK	SA	A	C	O	CCF	2R			TP-01, TP-07



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R			TP-07
2-V09119	2A AFW Supply Header Check Valve	2998 G 080-2B	B-6	2	C	4	CK	SA	A	C	O	CCL	2R			TP-01, TP-07
												COF	2R			TP-07
2-V09120	Auxiliary Feedwater Manual Isolation Valve	2998 G 080-2B	B-7	2	B	4	GA	M	A	LO	O/C	ME	2Y			
2-V09123	2B AFW Pump Discharge Check Valve	2998 G 080-2B	D-4	3	C	4	CK	SA	A	C	O	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
2-V09135	2B AFW Supply Header Check Valve	2998 G 080-2B	D-6	2	C	4	CK	SA	A	C	O	CCL	2R			TP-01, TP-07
												COF	2R			TP-07
2-V09136	Auxiliary Feedwater Manual Isolation Valve	2998 G 080-2B	D-7	2	B	4	GA	M	A	LO	O/C	ME	2Y			
2-V09139	2C AFW Pump Discharge Check Valve	2998 G 080-2B	F-4	3	C	4	CK	SA	A	C	O	CCL	2R			TP-01, TP-07
												COF	2R			TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V09151	2C AFW Supply Header Check Valve	2998 G 080-2B	F-6	2	C	4	CK	SA	A	C	O	CCL	2R			TP-01, TP-07
												COF	2R			TP-07
2-V09152	Auxiliary Feedwater Manual Isolation Valve	2998 G 080-2B	F-7	2	B	4	GA	M	A	LO	O/C	ME	2Y			
2-V09157	2C AFW Supply Header Check Valve	2998 G 080-2B	G-6	2	C	4	CK	SA	A	C	O	CCL	2R			TP-01, TP-07
												COF	2R			TP-07
2-V09158	Auxiliary Feedwater Manual Isolation Valve	2998 G 080-2B	G-7	2	B	4	GA	M	A	LO	O/C	ME	2Y			
2-V09252	2A Steam Generator Feedwater Check Valve	2998 G 080-2A	B-7	2	C	18	CK	SA	A	O	O/C	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
2-V09294	2B Steam Generator Feedwater Check Valve	2998 G 080-2A	C-7	2	C	18	CK	SA	A	O	O/C	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
2-V09303	2C AFW Pump Minimum Flow Check Valve	2998 G 080-2B	G-3	3	B	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COU	2R			TP-07
2-V09304	2B AFW Pump Minimum Flow Check Valve	2998 G 080-2B	E-3	3	B	1.5	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COU	2R			TP-07
2-V09305	2A AFW Pump Minimum Flow Check Valve	2998 G 080-2B	C-3	3	B	1.5	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COU	2R			TP-07
2-V09724	Chemical Addition Check Valve	2998 G 080-2B	A-6	3	C	0.38	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
2-V09725	Chemical Addition Check Valve	2998 G 080-2B	E-6	3	C	0.38	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
2-V09726	Chemical Addition Check Valve	2998 G 080-2B	H-6	3	C	0.38	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07
2-V09727	Chemical Addition Check Valve	2998 G 080-2B	H-6	3	C	0.38	CK	SA	A	C	C	CCL	2R			TP-07
												COF	2R			TP-01, TP-07

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V12801	Unit 1/2 CST/AFW Suction Cross Connect Valve	2998 G 080-2B	A-2	3	B	8	GA	M	A	LC	O/C	ME	2Y			
2-V12802	Unit 1/2 CST/AFW Suction Cross Connect Valve	2998 G 080-2B	A-2	3	B	8	GA	M	A	LC	O/C	ME	2Y			
2-V12803	Isolation Valve for CST Inlet to/from Unit 1	2998 G 080-2B	A-2	3	B	8	GA	M	A	LC	O/C	ME	2Y			
2-V12805	Isolation Valve for CST Inlet to/from Unit 1	2998 G 080-2B	A-3	NC	B	8	GA	M	A	LC	O/C	ME	2Y			
2-V12806	Unit 2 CST To Unit 1 Check Valve	2998 G 080-2B	A-3	NC	C	8	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-FCV-25-1	Containment Purge Isolation Valve	2998 G 878	C-2	2	B	48	BTF	PO	A	C	C	FSC	CS		CS-16	TP-03
												PIT	2Y			
												ST-C	CS		CS-16	
2-FCV-25-11	Shield Building Ventilation System Cooling Air Isolation	2998 G 879-3	H-4	2	B	24	BTF	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	3M			
2-FCV-25-12	Shield Building Ventilation System Cooling Air Isolation	2998 G 879-3	J-4	2	B	24	BTF	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FCV-25-13	SBVS Cross Connect Valve	2998 G 879-3	I-13	2	B	12	BTF	MO	A	O	O	PIT	2Y			
												ST-O	3M			
2-FCV-25-14	Control Room Outside Air Intake Isolation Valve	2998 G 879-2	E-5	3	B	12	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FCV-25-15	Control Room Outside Air Intake Isolation Valve	2998 G 879-2	E-7	3	B	12	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-FCV-25-16	Control Room Outside Air Intake Isolation Valve	2998 G 879-2	E-6	3	B	12	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FCV-25-17	Control Room Outside Air Intake Isolation Valve	2998 G 879-2	E-8	3	B	12	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FCV-25-18	Control Room Toilet Area Exhaust Isolation Valve	2998 G 879-2	C-17	3	B	6	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
2-FCV-25-19	Control Room Toilet Area Exhaust Isolation Valve	2998 G 879-2	C-17	3	B	6	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
2-FCV-25-2	Containment Purge Isolation Valve	2998 G 878	C-3	2	A	48	BTF	PO	A	C	C	FSC	CS		CS-16	TP-03
												LT-J	App J			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	CS	CS-16		
2-FCV-25-20	Containment/Hydr ogen Purge Containment Isolation Valve	2998 G 879-3	M-1	2	A	8	BTF	PO	A	C	C	FSC	3M	TP-03		
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-FCV-25-21	Containment/Hydr ogen Purge Containment Isolation Valve	2998 G 879-3	M-2	2	A	8	BTF	PO	A	C	C	FSC	3M	TP-03		
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-FCV-25-24	Control Room Kitchen Exhaust Isolation Valve	2998 G 879-2	A-17	3	B	10	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-FCV-25-25	Control Room Kitchen Exhaust Isolation Valve	2998 G 879-2	A-17	3	B	10	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
2-FCV-25-26	Containment/Hydrogen Purge Containment Isolation Valve	2998 G 879-3	N-2	2	A	8	BTF	PO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-FCV-25-29	Containment/Hydrogen Purge to SBVS Crosstie Isolation	2998 G 879-3	K-3	2	B	4	BTF	MO	P	LC	N/A	PIT	2Y			
2-FCV-25-3	Containment Purge Isolation Valve	2998 G 878	C-3	2	A	48	BTF	PO	A	C	C	FSC	CS		CS-16	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-16	
2-FCV-25-30	Fuel Pool Exhaust to SBVS Crosstie Isolation	2998 G 879-3	H-4	2	B	20	BTF	MO	A	O	O/C	PIT	2Y			



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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
												ST-O	3M			
2-FCV-25-31	Fuel Pool Exhaust to SBVS Crosstie Isolation	2998 G 879-3	J-4	2	B	20	BTF	MO	A	O	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FCV-25-32	SBVS Suction Isolation Valve	2998 G 879-3	H-4	2	B	30	BTF	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FCV-25-33	SBVS Suction Isolation Valve	2998 G 879-3	J-4	2	B	30	BTF	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FCV-25-34	Containment/Hydr ogen Purge to SBVS Crosstie Isolation	2998 G 879-3	H-2	2	B	4	BTF	MO	P	LC	N/A	PIT	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-FCV-25-36	Containment/Hydrogen Purge Containment Isolation Valve	2998 G 879-3	N-1	2	A	8	BTF	PO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-FCV-25-4	Containment Purge Isolation Valve	2998 G 878	C-6	2	A	48	BTF	PO	A	C	C	FSC	CS		CS-16	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-16	
2-FCV-25-5	Containment Purge Isolation Valve	2998 G 878	C-7	2	A	48	BTF	PO	A	C	C	FSC	CS		CS-16	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-16	

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-FCV-25-6	Containment Purge Isolation Valve	2998 G 878	C-8	2	B	48	BTF	PO	A	C	C	FSC	CS		CS-16	TP-03
												PIT	2Y			
												ST-C	CS		CS-16	
2-FCV-25-7	Containment Vacuum Relief Isolation Valve	2998 G 878	C-15	2	A/C	24	BTF	PO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FCV-25-8	Containment Vacuum Relief Isolation Valve	2998 G 878	C-15	2	A/C	24	BTF	PO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V-25-20	Containment Vacuum Relief Check Valve	2998 G 878	C-13	2	A/C	24	CK	SA	A	C	O/C	CCX	1R			TP-07
												COX	1R			TP-07
												LT-J	App J			
												VAC	1R			TP-07
2-V-25-21	Containment Vacuum Relief Check Valve	2998 G 878	C-13	2	A/C	24	CK	SA	A	C	O/C	CCX	1R			TP-07
												COX	1R			TP-07
												LT-J	App J			
												VAC	1R			TP-07
2-V-25-23	SBVS Cooling Air Check Valve	2998 G 879-3	J-4	2	C	24	CK	SA	A	C	O/C	COF	1R			TP-07
												CCD	3R			TP-07
2-V-25-24	SBVS Cooling Air Check Valve	2998 G 879-3	H-4	2	C	24	CK	SA	A	C	O/C	COF	1R			TP-07
												CCD	3R			TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-HCV-18-1	Instrument Air Containment Isolation Valve (Pen P 9)	2998 G 085-2C	G-3	2	A	1	GL	AO	A	O	C	FSC	CS		CS-15	TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	CS		CS-15	
2-SR-18-6A	Shield Building Hatch Door Seal Relief Valve	2998 G 085-2A	D-2	2	C	0.5x1	RV	SA	A	C	O/C	RVT	10Y			
2-SR-18-6B	Shield Building Hatch Door Seal Relief Valve	2998 G 085-2A	D-1	2	C	0.5x1	RV	SA	A	C	O/C	RVT	10Y			
2-V18195	Instrument Air Containment Isolation Valve (Pen P 9)	2998 G 085-2A	E-6	2	A/C	2	CK	SA	A	O	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			
2-V18279	Shield Bldg Hatch Door Seal Accumulator Check Valve	2998 G 085-2A	B-2	2	C	0.5	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V18283	Shield Bldg Hatch Door Seal Accumulator Check Valve	2998 G 085-2A	A-3	2	C	0.5	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07
2-V18290	Containment Vacuum Relief Accumulator Check Valve	2998 G 085-2A	G-2	2	C	0.75	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07
2-V18291	Containment Vacuum Relief Accumulator Check Valve	2998 G 085-2A	G-2	2	C	0.75	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07
2-V18294	Containment Vacuum Relief Accumulator Check Valve	2998 G 085-2A	H-2	2	C	0.75	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07
2-V18295	Containment Vacuum Relief Accumulator Check Valve	2998 G 085-2A	H-2	2	C	0.75	CK	SA	A	C	C	CCL	1R			TP-07
												COF	1R			TP-01, TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-HCV-21-7A	SS-21-1A Debris Discharge Isolation	2998 G 082-2	D-4	3	B	6	BAL	PO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-HCV-21-7B	SS-21-1B Debris Discharge Isolation	2998 G 082-2	D-7	3	B	6	BAL	PO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-MV-21-2	Turbine Cooling Water Header Isolation Valve	2998 G 082-2	F-4	3	B	24	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
2-MV-21-3	Turbine Cooling Water Header Isolation Valve	2998 G 082-2	G-4	3	B	24	BTF	MO	A	O	C	PIT	2Y			
												ST-C	3M			
2-SB-21385	Emergency Make up to Fuel Pool from SS 21 1A, 1B Valve	2998 G 082-2	B-3	3	B	3	BTF	M	A	C	O	ME	2Y			
2-SB-21386	Emergency Make up to Fuel Pool From SS 21 1A, 1B	2998 G 082-2	C-7	3	B	3	BTF	M	A	C	O	ME	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SH-212023	Emerg Make up to 2998 G 082-2 SFP Train 2A Drain Valves		B-4	3	B	1	BAL	M	A	O	C	ME	2Y			
2-SH-212024	Emerg Make up to 2998 G 082-2 SFP Train 2B Drain Valves		C-7	3	B	1	BAL	M	A	O	C	ME	2Y			
2-TCV-14-4A	CCW Heat Exchanger Temp. Control Valve	2998 G 082-2	A-5	3	B	30	BTF	PO	A	O	O	FSO	3M			TP-03
												ST-O	3M			
2-TCV-14-4B	CCW Heat Exchanger Temp. Control Valve	2998 G 082-2	A-6	3	B	30	BTF	PO	A	O	O	FSO	3M			TP-03
												ST-O	3M			
2-V21162	2A ICW Pump Discharge Check Valve	2998 G 082-2	G-5	3	C	30	CK	SA	A	O	O/C	CC	3M			
												CO	3M			
2-V21205	2C ICW Pump Discharge Check Valve	2998 G 082-2	G-6	3	C	30	CK	SA	A	O	O/C	CC	3M			
												CO	3M			
2-V21208	2B ICW Pump Discharge Check Valve	2998 G 082-2	G-7	3	C	30	CK	SA	A	O	O/C	CC	3M			
												CO	3M			



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V21402	CCW Hx Outlet Vacuum Breaker Check Valve	2998 G 082-2	D-4	3	C	2	CK	SA	A	O	O	CCV	2R			TP-01, TP-07
												COF	2R			TP-07
2-V21403	CCW Hx Outlet Vacuum Breaker Check Valve	2998 G 082-2	D-7	3	C	2	CK	SA	A	O	O	CCV	2R			TP-01, TP-07
												COF	2R			TP-07
2-V00101	Isolation Valve for Containment ILRT Press	2998 G 091-1	B-5	2	A	8	GA	M	P	LC	C	LT-J	App J			
2-V00139	Isolation Valve (Pen P 52E) for Containment ILRT Pressure	2998 G 091-1	C-4	2	A	0.38	GL	M	P	LC	C	LT-J	App J			
2-V00140	Isolation Valve (Pen P 52D) for Containment ILRT Controlled	2998 G 091-1	D-4	2	A	1	GL	M	P	LC	C	LT-J	App J			
2-V00143	Isolation Valve (Pen P 52D) for Containment ILRT Controlled	2998 G 091-1	D-5	2	A	1	GL	M	P	LC	C	LT-J	App J			
2-V00144	Containment ILRT Pressure Sensing Isolation Valve	2998 G 091-1	C-5	2	A	0.38	GL	M	P	LC	C	LT-J	App J			
2-FCV-26-1	Containment Air Radiation Monitors Containment Isolation	2998 G 092-1	B-2	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-FCV-26-2	Containment Air Radiation Monitors Containment Isolation	2998 G 092-1	B-2	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-FCV-26-3	Containment Air Radiation Monitors Containment Isolation	2998 G 092-1	B-3	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-FCV-26-4	Containment Air Radiation Monitors Containment Isolation	2998 G 092-1	B-3	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-FCV-26-5	Containment Air Radiation Monitors Containment Isolation	2998 G 092-1	B-3	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-FCV-26-6	Containment Air Radiation Monitors Containment Isolation	2998 G 092-1	B-3	2	A	1	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
2-FSE-27-10	Hydrogen Sample Isolation Valve	2998 G 092-1	A-5	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FSE-27-11	Hydrogen Sample Isolation Valve	2998 G 092-1	B-5	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FSE-27-12	Hydrogen Sample Isolation Valve	2998 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
												ST-O	3M			
2-FSE-27-13	Hydrogen Sample Isolation Valve	2998 G 092-1	A-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FSE-27-14	Hydrogen Sample Isolation Valve	2998 G 092-1	A-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FSE-27-15	Hydrogen Sample Isolation Valve	2998 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FSE-27-16	Hydrogen Sample Isolation Valve	2998 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FSE-27-17	Hydrogen Sample Isolation Valve	2998 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FSE-27-18	Hydrogen Sample Isolation Valve	2998 G 092-1	B-6	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FSE-27-8	Hydrogen Sample Isolation Valve	2998 G 092-1	A-5	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-FSE-27-9	Hydrogen Sample Isolation Valve	2998 G 092-1	A-5	2	A	0.38	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SE-07-5A	Solenoid Valve for 2998 G 088-2 Pen P 55		C-6	2	B	0.38	GL	SO	P	O	O	PIT	2Y			
2-SE-07-5B	Solenoid Valve for 2998 G 088-2 Pen P 72		D-6	2	B	0.38	GL	SO	P	O	O	PIT	2Y			
2-SE-07-5C	Solenoid Valve for 2998 G 088-2 Pen P 58		D-6	2	B	0.38	GL	SO	P	O	O	PIT	2Y			
2-SE-07-5D	Solenoid Valve for 2998 G 088-2 Pen P 71		D-6	2	B	0.38	GL	SO	P	O	O	PIT	2Y			
2-V27101	Hydrogen Sample Check Valve	2998 G 092-1	B-6	2	A/C	0.38	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			
2-V27102	Hydrogen Sample Check Valve	2998 G 092-1	B-6	2	A/C	0.38	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			
2-HCV-08-1A	Main Steam Isolation Valve (MSIV)	2998 G 079-1	C-6	2	B	34	GL	AO	A	O	C	PIT	2Y			
												ST-C	CS		CS-09	
2-HCV-08-1B	Main Steam Isolation Valve (MSIV)	2998 G 079-1	E-6	2	B	34	GL	AO	A	O	C	PIT	2Y			



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	CS	CS-09		
2-MV-08-12	Auxiliary Feedwater Pump Turbine Steam Supply Valve	2998 G 079-1	G-4	2	B	4	GA	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-MV-08-13	Auxiliary Feedwater Pump Turbine Steam Supply Valve	2998 G 079-1	G-4	2	B	4	GA	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-MV-08-14	Main Steamline Atmospheric Dump Block Valve	2998 G 079-1	B-4	2	B	8	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M	TP-11		
2-MV-08-15	Main Steamline Atmospheric Dump Block Valve	2998 G 079-1	B-4	2	B	8	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M	TP-11		
2-MV-08-16	Main Steamline Atmospheric Dump Block Valve	2998 G 079-1	E-4	2	B	8	GA	MO	A	LO	O/C	PIT	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			TP-11
2-MV-08-17	Main Steamline Atmospheric Dump Block Valve	2998 G 079-1	E-4	2	B	8	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			TP-11
2-MV-08-18A	Main Steamline Atmospheric Dump Valve	2998 G 079-1	A-4	2	B	10	ANG	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-MV-08-18B	Main Steamline Atmospheric Dump Valve	2998 G 079-1	D-4	2	B	10	ANG	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-MV-08-19A	Main Steamline Atmospheric Dump Valve	2998 G 079-1	A-4	2	B	10	ANG	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-MV-08-19B	Main Steamline Atmospheric Dump Valve	2998 G 079-1	D-4	2	B	10	ANG	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-MV-08-1A	2A Main Steam Isolation Valve Bypass Valve	2998 G 079-1	C-6	2	B	3	GL	MO	A	C	C	PIT	2Y			
												ST-C	CS		CS-10	
2-MV-08-1B	2B Main Steam Isolation Valve Bypass Valve	2998 G 079-1	E-6	2	B	3	GL	MO	A	C	C	PIT	2Y			
												ST-C	CS		CS-10	
2-MV-08-3	2C AFW Turbine Trip Throttle Valve	2998 G 079-1	G-6	2	B	4	GL	MO	P	LO	O	PIT	2Y			
2-SE-08-1	Auxiliary Feedwater Turbine Warm up Valve	2998 G 079-1	H-3	2	B	0.75	GL	SO	A	O	O/C	PIT	2Y			
												ST-C	3M			TP-11
2-SE-08-2	Auxiliary Feedwater Turbine Warm up Valve	2998 G 079-1	H-4	2	B	0.75	GL	SO	A	O	O/C	PIT	2Y			
												ST-C	3M			TP-11

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SE-08-896	MSIV Instrument Air Supply Valve	2998 G 079-7	C-2	2	B	0.38	3W	SO	A	Flow	Vent	ST-O	CS			TP-09
2-SE-08-897	MSIV Instrument Air Supply Valve	2998 G 079-7	C-5	2	B	0.38	3W	SO	A	Flow	Vent	ST-O	CS			TP-09
2-SE-08-934	MSIV Instrument Air Supply Valve	2998 G 079-7	F-2	2	B	0.38	3W	SO	A	Flow	Vent	ST-O	CS			TP-09
2-SE-08-935	MSIV Instrument Air Supply Valve	2998 G 079-7	F-5	2	B	0.38	3W	SO	A	Flow	Vent	ST-O	CS			TP-09
2-V08130	AFW Turbine Steam Supply Check Valve	2998 G 079-1	G-4	3	C	4	CK	SA	A	O	O/C	CCD	3R			TP-07
												COD	3R			TP-07
2-V08163	AFW Turbine Steam Supply Check Valve	2998 G 079-1	G-4	3	C	4	CK	SA	A	O	O/C	CCD	3R			TP-07
												COD	3R			TP-07
2-V08887	MSIV 1A Control Valve 2	2998 G 079-7	C-2	2	B	1	3W	AO	A	Flow	Vent	FSV	CS			TP-03, TP-09
												ST-O	CS			TP-09
2-V08888	MSIV 1A Control Valve 3	2998 G 079-7	C-3	2	B	1	3W	AO	A	Flow	Vent	FSV	CS			TP-03, TP-09
												ST-O	CS			TP-09
2-V08889	MSIV 1A Control Valve 4	2998 G 079-7	C-4	2	B	1	3W	AO	A	Flow	Vent	FSV	CS			TP-03, TP-09

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	CS			TP-09
2-V08890	MSIV 1A Control Valve 5	2998 G 079-7	C-5	2	B	1	3W	AO	A	Flow	Vent	FSV	CS			TP-03, TP-09
												ST-O	CS			TP-09
2-V08925	MSIV 1B Control Valve 2	2998 G 079-7	G-2	2	B	1	3W	AO	A	Flow	Vent	FSV	CS			TP-03, TP-09
												ST-O	CS			TP-09
2-V08926	MSIV 1B Control Valve 3	2998 G 079-7	G-3	2	B	1	3W	AO	A	Flow	Vent	FSV	CS			TP-03, TP-09
												ST-O	CS			TP-09
2-V08927	MSIV 1B Control Valve 4	2998 G 079-7	G-4	2	B	1	3W	AO	A	Flow	Vent	FSV	CS			TP-03, TP-09
												ST-O	CS			TP-09
2-V08928	MSIV 1B Control Valve 5	2998 G 079-7	G-5	2	B	1	3W	AO	A	Flow	Vent	FSV	CS			TP-03, TP-09
												ST-O	CS			TP-09
2-V08965	MSIV 1A Actuator Vacuum Breaker Check Valve	2998 G 079-7	A-3	2	B		CK	SA	A	C	O	CO	CS			TP-09
2-V08966	MSIV 1B Actuator Vacuum Breaker Check Valve	2998 G 079-7	E-3	2	B		CK	SA	A	C	O	CO	CS			TP-09

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V8201	Main Steam Safety Valve	2998 G 079-1	B-5	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8202	Main Steam Safety Valve	2998 G 079-1	B-5	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8203	Main Steam Safety Valve	2998 G 079-1	B-5	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8204	Main Steam Safety Valve	2998 G 079-1	B-5	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8205	Main Steam Safety Valve	2998 G 079-1	E-5	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8206	Main Steam Safety Valve	2998 G 079-1	D-5	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8207	Main Steam Safety Valve	2998 G 079-1	E-5	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8208	Main Steam Safety Valve	2998 G 079-1	D-5	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8209	Main Steam Safety Valve	2998 G 079-1	B-6	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8210	Main Steam Safety Valve	2998 G 079-1	B-6	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8211	Main Steam Safety Valve	2998 G 079-1	B-6	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8212	Main Steam Safety Valve	2998 G 079-1	B-6	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8213	Main Steam Safety Valve	2998 G 079-1	E-6	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8214	Main Steam Safety Valve	2998 G 079-1	D-6	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V8215	Main Steam Safety Valve	2998 G 079-1	E-6	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-V8216	Main Steam Safety Valve	2998 G 079-1	D-6	2	C	6x10	SV	SA	A	C	O/C	RVT	Y5			
2-HCV-15-1	Primary Make Up Water Containment Isolation Valve	2998 G 084-1	D-6	2	A	2	GL	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-SR-15925	Service and Primary Water Makeup Thermal Relief Valve	2998 G 084-1	D-5	NC	C	0.75	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V15328	Primary Make Up Water Containment Isolation Check Valve	2998 G 084-1	D-5	2	A/C	2	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			
2-V1200	Pressurizer Safety/Relief Valve	2998 G 078-109	C-4	1	C	3	SV	SA	A	C	O/C	RVT	Y5			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V1201	Pressurizer Safety/Relief Valve	2998 G 078-109	C-4	1	C	3	SV	SA	A	C	O/C	RVT	Y5			
2-V1202	Pressurizer Safety/Relief Valve	2998 G 078-109	C-4	1	C	3	SV	SA	A	C	O/C	RVT	Y5			
2-V1460	Reactor Coolant Gas Vent Valve	2998 G 078-107	C-5	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
2-V1461	Reactor Coolant Gas Vent Valve	2998 G 078-107	D-5	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
2-V1462	Reactor Coolant Gas Vent Valve	2998 G 078-107	D-5	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	



ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	CS		CS-02	
2-V1463	Reactor Coolant Gas Vent Valve	2998 G 078-107	E-5	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
2-V1464	Reactor Coolant Gas Vent Valve	2998 G 078-107	D-6	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
2-V1465	Reactor Coolant Gas Vent Valve	2998 G 078-107	D-6	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03
												PIT	2Y			
												ST-C	CS		CS-02	
												ST-O	CS		CS-02	
2-V1466	Reactor Coolant Gas Vent Valve	2998 G 078-107	E-6	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-02	TP-03

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	CS	CS-02		
												ST-O	CS	CS-02		
2-V1474	Pressurizer Power Operated Relief Valve (PORV)	2998 G 078-108	D-4	1	B	3	GL	SO	A	C	O/C	FSC	RR	TP-03		
												PIT	2Y			
												ST-O	RR	TP-11		
2-V1475	Pressurizer Power Operated Relief Valve (PORV)	2998 G 078-108	F-4	1	B	3	GL	SO	A	C	O/C	FSC	RR	TP-03		
												PIT	2Y			
												ST-O	RR	TP-11		
2-V1476	PORV Block Valve	2998 G 078-108	D-5	1	B	3	GA	MO	A	O	O/C	PIT	2Y			
												ST-C	3M	TP-11		
2-V1477	PORV Block Valve	2998 G 078-108	F-5	1	B	3	GA	MO	A	O	O/C	PIT	2Y			
												ST-C	3M	TP-11		

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-HCV-18-2	Service Air Containment Isolation Valve(Pen P 8)	2998 G 085-1	F-6	2	A	2	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-SH-18797	Service Air To Construction Hatch Isolation Valve (Pen P 8)	2998 G 085-1	F-3	2	A	1	BAL	M	P	LC	C	LT-J	App J			
2-V181270	Containment Isolation Valve for Service Air (Pen P 8)	2998 G 085-1	E-5	2	A/C	2	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			
2-SE-05-1A	Isolation Valve for 2A1 SIT Sampling (Pen P 28A)	2998 G 078-153	B-2	2	A	0.38	GL	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SE-05-1B	Isolation Valve for 2A2 SIT Sampling (Pen P 28A)	2998 G 078-153	C-2	2	A	0.38	GL	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-SE-05-1C	Isolation Valve for 2B1 SIT Sampling (Pen P 28A)	2998 G 078-153	E-2	2	A	0.38	GL	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-SE-05-1D	Isolation Valve for 2B2 SIT Sampling (Pen P 28A)	2998 G 078-153	G-2	2	A	0.38	GL	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SE-05-1E	Isolation Valve for Common SIT Sampling (Pen P 28A)	2998 G 078-153	B-4	2	A	0.38	GL	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-V5200	RCS Sample Isolation Valve (Pen P 28B)	2998 G 078-153	C-3	2	A	0.38	GL	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-V5201	RCS Sample Isolation Valve (Pen P 29A)	2998 G 078-153	D-3	2	A	0.38	GL	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V5202	RCS Sample Isolation Valve (Pen P 29B)	2998 G 078-153	F-3	2	A	0.38	GL	SO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-V5203	RCS Sample Isolation Valve (Pen P 29A)	2998 G 078-153	D-3	2	A	0.38	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-V5204	RCS Sample Isolation Valve (Pen P 29A)	2998 G 078-153	D-4	2	A	0.38	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-V5205	RCS Sample Isolation Valve (Pen P 29B)	2998 G 078-153	F-4	2	A	0.38	GL	AO	A	C	C	FSC	3M			TP-03

ATTACHMENT 7

Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-FCV-23-3	2A Steam Generator Blowdown Isolation	2998 G 086-1	C-6	2	B	3	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-FCV-23-5	2B Steam Generator Blowdown Isolation	2998 G 086-1	C-6	2	B	3	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-FCV-23-7	2A Steam Generator Blowdown Isolation	2998 G 086-1	C-7	2	B	0.5	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-FCV-23-9	2B Steam Generator Blowdown Isolation	2998 G 086-1	C-6	2	B	0.5	GL	AO	A	O	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-FCV-3301	LPSI Header SDC Hx Bypass Valve	2998 G 078-130B	F-5	2	B	10	BTF	MO	A	LO	O/C	PIT	2Y			TP-11
												ST-C	3M			
2-FCV-3306	LPSI Header SDC Hx Bypass Valve	2998 G 078-130B	E-5	2	B	10	BTF	MO	A	LO	O/C	PIT	2Y			TP-11
												ST-C	3M			
2-HCV-3512	Shutdown Cooling Temperature Control Valve	2998 G 078-130B	F-6	2	B	10	BTF	MO	A	LC	O/C	PIT	2Y			TP-11
												ST-O	3M			
2-HCV-3615	LPSI Cold Leg Injection Isolation Valve	2998 G 078-131	A-2	2	B	6	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			



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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-HCV-3616	2B HPSI Cold Leg Injection Isolation Valve	2998 G 078-131	B-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-HCV-3617	2A HPSI Cold Leg Injection Isolation Valve	2998 G 078-131	B-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-HCV-3618	SI Check Valve Leakage Test Isolation Valve	2998 G 078-132	D-5	1	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-HCV-3625	LPSI Cold Leg Injection Isolation Valve	2998 G 078-131	C-2	2	B	6	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-HCV-3626	2B HPSI Cold Leg Injection Isolation Valve	2998 G 078-131	D-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-HCV-3627	2A HPSI Cold Leg Injection Isolation Valve	2998 G 078-131	D-3	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-HCV-3628	SI Check Valve Leakage Test Isolation Valve	2998 G 078-132	D-2	1	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-HCV-3635	LPSI Cold Leg Injection Isolation Valve	2998 G 078-131	E-2	2	B	6	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-HCV-3636	2B HPSI Cold Leg Injection Isolation Valve	2998 G 078-131	F-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-HCV-3637	2A HPSI Cold Leg Injection Isolation Valve	2998 G 078-131	F-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-HCV-3638	SI Check Valve Leakage Test Isolation Valve	2998 G 078-132	H-2	1	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-HCV-3645	LPSI Cold Leg Injection Isolation Valve	2998 G 078-131	G-2	2	B	6	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-HCV-3646	2B HPSI Cold Leg Injection Isolation Valve	2998 G 078-131	H-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-HCV-3647	2A HPSI Cold Leg Injection Isolation Valve	2998 G 078-131	H-2	2	B	2	GL	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-HCV-3648	SI Check Valve Leakage Test Isolation Valve	2998 G 078-132	H-5	1	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-HCV-3657	Shutdown Cooling Temperature Control Valve	2998 G 078- 130B	E-5	2	B	10	BTF	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
2-MV-07-2A	SI Pump Containment Sump Suction Valve	2998 G 088-2	G-3	2	B	24	BTF	MO	A	C	O/C	PIT	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
												ST-O	3M			
2-MV-07-2B	SI Pump Containment Sump Suction Valve	2998 G 088-2	G-3	2	B	24	BTF	MO	A	C	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SE-03-1A	SI Tank Drain/fill Isolation Valve	2998 G 078-132	C-3	2	B	1	GL	SO	A	C	O/C	FSC	3M			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SE-03-1B	SI Tank Drain/fill Isolation Valve	2998 G 078-132	C-6	2	B	1	GL	SO	A	C	O/C	FSC	3M			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SE-03-1C	SI Tank Drain/fill Isolation Valve	2998 G 078-132	G-3	2	B	1	GL	SO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SE-03-1D	SI Tank Drain/fill Isolation Valve	2998 G 078-132	G-6	2	B	1	GL	SO	A	C	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SE-03-2A	SI Tank Drain/Test Line to RWT	2998 G 078- 130B	B-7	2	A	2	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-SE-03-2B	SI Tank Drain/Test Line to RWT	2998 G 078-130B	C-7	2	A	2	GL	SO	A	C	O/C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-SR-03-1	Shutdown Cooling To/From CVCS Purification Relief Valve	2998 G 078-130B	G-6	3	C	3/4x1	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR-03-2	Shutdown Cooling To/From CVCS Purification	2998 G 078-131	D-3	3	C	3/4x1	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-SR-07-1A	Safety Injection Pumps Suction Header Relief Valve	2998 G 078-130B	E-1	2	C	3/4x1	RV	SA	A	C	O/C	RVT	10Y			
2-SR-07-1B	Safety Injection Pumps Suction Header Relief Valve	2998 G 078-130B	G-1	2	C	3/4x1	RV	SA	A	C	O/C	RVT	10Y			
2-V03002	SIT Drain To RWT Check Valve	2998 G 078-132	C-5	3	C	1	CK	SA	A	C	O	CCF	2R			TP-01, TP-07
												COF	2R			TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V03003	SIT Drain To RWT Check Valve	2998 G 078-132	G-2	3	C	1	CK	SA	A	C	O	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
2-V03004	SIT Drain To RWT Check Valve	2998 G 078-132	C-2	3	C	1	CK	SA	A	C	O	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
2-V03005	SIT Drain To RWT Check Valve	2998 G 078-132	G-5	3	C	1	CK	SA	A	C	O	CCF	2R			TP-01, TP-07
												COF	2R			TP-07
2-V07000	2A LPSI Pump Suction Check Valve	2998 G 078- 130B	E-1	2	C	14	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V07001	2B LPSI Pump Suction Check Valve	2998 G 078- 130B	F-1	2	C	14	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V07172	SI Pump Containment Sump Suction Check Valve	2998 G 088-2	G-2	2	C	24	CK	SA	A	C	O	CCD	3R			TP-01, TP-07
												COD	3R			TP-07



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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V07174	SI Pump Containment Sump Suction Check Valve	2998 G 088-2	G-2	2	C	24	CK	SA	A	C	O	CCD	3R			TP-01, TP-07
												COD	3R			TP-07
2-V3101	Safety Injection Supply To VCT	2998 G 078-130B	B-6	3	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V3102	2A HPSI Minimum Flow Check Valve	2998 G 078-130A	B-3	2	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COU	2R			TP-07
2-V3103	2B HPSI Minimum Flow Check Valve	2998 G 078-130A	E-4	2	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COU	2R			TP-07
2-V3104	2A LPSI Minimum Flow Check Valve	2998 G 078-130B	F-3	2	C	2	CK	SA	A	C	O/C	CCU	2R			TP-07
												COU	2R			TP-07
2-V3105	2B LPSI Minimum Flow Check Valve	2998 G 078-130B	F-3	2	C	2	CK	SA	A	C	O/C	CCU	2R			TP-07
												COU	2R			TP-07
2-V3106	2A LPSI Pump Discharge Check Valve	2998 G 078-130B	E-4	2	C	10	CK	SA	A	C	O	CCU	2R			TP-01, TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R			TP-07
2-V3107	2B LPSI Pump Discharge Check Valve	2998 G 078- 130B	F-4	2	C	10	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V3113	HPSI 2A2 Cold Leg Injection Check Valve	2998 G 078-131	B-3	2	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V3114	LPSI 2A2 Cold Leg Injection Check Valve	2998 G 078-131	A-3	2	C	6	CK	SA	A	C	O/C	CCU	2R			TP-07
												COF	2R			TP-07
2-V3124	LPSI 2A1 Cold Leg Injection Check Valve	2998 G 078-131	C-3	2	C	6	CK	SA	A	C	O/C	CCU	2R			TP-07
												COF	2R			TP-07
2-V3133	HPSI 2B1 Cold Leg Injection Check Valve	2998 G 078-131	F-3	2	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V3134	LPSI 2B1 Cold Leg Injection Check Valve	2998 G 078-131	E-3	2	C	6	CK	SA	A	C	O/C	CCU	2R			TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R			TP-07
2-V3143	HPSI 2B2 Cold Leg Injection Check Valve	2998 G 078-131	H-3	2	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V3144	LPSI 2B2 Cold Leg Injection Check Valve	2998 G 078-131	G-3	2	C	6	CK	SA	A	C	O/C	CCU	2R			TP-07
												COF	2R			TP-07
2-V3201	Safety Injection To VCT	2998 G 078-130B	B-6	3	B	2	GL	M	A	LC	O	ME	2Y			
2-V3205	2B LPSI Pump Recirc to RWT Iso Valve	2998 G 078-130B	E-4	2	B	2	GL	M	A	LO	O/C	ME	2Y			
2-V3211	2A2 Safety Injection Tank Relief Valve	2998 G 078-132	A-6	2	C	1.5x2.5	RV	SA	A	C	O/C	RVT	10Y			
2-V3215	2A2 Safety Injection Tank Discharge Check Valve	2998 G 078-132	C-6	2	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07
												CP	2R			TP-07
												LT-S	PIV			
2-V3217	2A1 SI Header Inboard Check Valve	2998 G 078-132	D-7	1	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												CP	2R			TP-07
												LT-S	PIV			
2-V3221	2A1 Safety Injection Tank Relief Valve	2998 G 078-132	A-3	2	C	1.5x2. 5	RV	SA	A	C	O/C	RVT	10Y			
2-V3225	2A1 Safety Injection Tank Discharge Check Valve	2998 G 078-132	C-3	2	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07
												CP	2R			TP-07
												LT-S	PIV			
2-V3227	2B1 SI Header Inboard Check Valve	2998 G 078-132	D-4	1	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07
												CP	2R			TP-07
												LT-S	PIV			
2-V3231	2B1 Safety Injection Tank Relief Valve	2998 G 078-132	E-3	2	C	1.5x2. 5	RV	SA	A	C	O/C	RVT	10Y			
2-V3235	2B1 Safety Injection Tank Discharge Check Valve	2998 G 078-132	G-3	2	A/C	12	CK	SA	A	C	O/C	CCL	PIV			TP-07
												CP	2R			TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												LT-S	PIV			
2-V3237	2B2 SI Header Inboard Check Valve	2998 G 078-132	H-4	1	A/C	12	CK	SA	A	C	O/C	CCL	PIV			
												CP	2R			
												LT-S	PIV			
2-V3241	2B2 Safety Injection Tank Relief Valve	2998 G 078-132	E-6	2	C	1.5x2. 5	RV	SA	A	C	O/C	RVT	10Y			
2-V3245	2B2 Safety Injection Tank Discharge Check Valve	2998 G 078-132	G-6	2	A/C	12	CK	SA	A	C	O/C	CCL	PIV			
												CP	2R			
												LT-S	PIV			
2-V3247	2A2 SI Header Inboard Check Valve	2998 G 078-132	H-7	1	A/C	12	CK	SA	A	C	O/C	CCL	PIV			
												CP	2R			
												LT-S	PIV			
2-V3258	2A1 SI Header Outboard Check Valve	2998 G 078-132	D-3	1	A/C	6	CK	SA	A	C	O/C	CCL	PIV			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												COF	2R			TP-07
												LT-S	PIV			
2-V3259	2A2 SI Header Outboard Check Valve	2998 G 078-132	D-6	1	A/C	6	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	2R			TP-07
												LT-S	PIV			
2-V3260	2B1 SI Header Outboard Check Valve	2998 G 078-132	H-3	1	A/C	6	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	2R			TP-07
												LT-S	PIV			
2-V3261	2B2 SI Header Outboard Check Valve	2998 G 078-132	H-6	1	A/C	6	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	2R			TP-07
												LT-S	PIV			
2-V3401	HPSI Pump Suction Check Valve	2998 G 078- 130A	B-2	2	C	6	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3407	Safety Injection Tank Recirculation Relief Valve	2998 G 078-130B	B-6	3	C	1/2 x 1	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V3410	HPSI Pump Suction Check Valve	2998 G 078-130A	F-2	2	C	8	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V3412	High Pressure Safety Injection Relief Valve	2998 G 078-130A	E-5	2	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V3414	2B HPSI Pump Discharge Stop Check Valve	2998 G 078-130A	F-4	2	C	3	CK	SA	A	C	O/C	CCL	2R			TP-07
												COF	2R			TP-07
2-V3417	High Pressure Safety Injection Relief Valve	2998 G 078-130A	B-5	2	C	1x2	RV	SA	A	C	O/C	RVT	10Y			
2-V3427	2A HPSI Pump Discharge Stop Check Valve	2998 G 078-130A	B-4	2	C	3	CK	SA	A	C	O/C	CCL	2R			TP-07
												COF	2R			TP-07
2-V3430	2B Shutdown Cooling Heat Exchanger Relief Valve	2998 G 078-130B	C-3	2	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V3431	2A Shutdown Cooling Heat Exchanger Relief Valve	2998 G 078-130B	A-3	2	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3432	2B LPSI Pump Suction Isolation Valve	2998 G 078-130B	F-1	2	B	14	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			TP-11
2-V3439	2A LPSI Header Relief Valve	2998 G 078-130B	D-7	2	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V3444	2A LPSI Pump Suction Isolation Valve	2998 G 078-130B	E-1	2	B	14	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			TP-11
2-V3456	2A Shutdown Cooling Hx Outlet Isolation Valve	2998 G 078-130B	C-5	2	B	10	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
2-V3457	2B Shutdown Cooling Hx Outlet Isolation Valve	2998 G 078-130B	D-6	2	B	10	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
2-V3463	SI Tank Drain/Test Line to RWT	2998 G 078-130B	B-6	2	A	2	GA	M	A	LC	O/C	LT-J	App J			
												ME	2Y			
2-V3466	SI Check Valve Leakage Test Line Relief Valve	2998 G 078-130B	A-7	3	C	1.5x2	RV	SA	A	C	O/C	RVT	10Y			



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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3468	2B Shutdown Cooling Suction Relief Valve	2998 G 078-131	D-2	2	C	2x3	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V3469	2B Shutdown Cooling Isolation Relief Valve	2998 G 078-131	D-6	1	C	0.75	RV	SA	A	C	O/C	RVT	Y5			
2-V3480	2A Shutdown Cooling Isolation Valve	2998 G 078-131	D-7	1	A	10	GA	MO	A	LC	O/C	LT-S	2Y			
												PIT	2Y			
												ST-C	CS		CS-08	
												ST-O	CS		CS-08	
2-V3481	2A Shutdown Cooling Isolation Valve	2998 G 078-131	D-6	1	A	10	GA	MO	A	LC	O/C	LT-S	2Y			
												PIT	2Y			
												ST-C	CS		CS-08	
												ST-O	CS		CS-08	
2-V3482	2A Shutdown Cooling Isolation Relief Valve	2998 G 078-131	D-6	1	C	0.75	RV	SA	A	C	O/C	RVT	Y5			
2-V3483	2A Shutdown Cooling Suction Relief Valve	2998 G 078-131	D-2	2	C	2x3	RV	SA	A	C	O/C	RVT	10Y			TP-08

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3495	A Train SI Pump Common Mini Flow Isolation Valve	2998 G 078-130B	B-4	2	B	6	GL	SO	A	LO	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			TP-11
2-V3496	B Train SI Pump Common Mini Flow Isolation Valve	2998 G 078-130B	B-3	2	B	6	GL	SO	A	LO	O/C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			TP-11
2-V3507	2B LPSI Header Relief Valve	2998 G 078-130B	F-7	2	C	1x2	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V3513	2B Shutdown Cooling to LPSI Header Relief Valve	2998 G 078-130B	C-6	2	C	2x3	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V3517	2A LPSI Pump Discharge to SDC Hx Valve	2998 G 078-130B	B-2	2	B	12	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
2-V3518	CVCS Charging to the 2B HPSI Header Cross Connect Valve	2998 G 078-130A	B-6	2	B	2	GL	M	A	C	O	ME	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3519	CVCS Charging to the 2A HPSI Header Cross Connect Valve	2998 G 078-130A	B-5	2	B	2	GL	M	A	C	O	ME	2Y			
2-V3522	2B HPSI Hot Leg Injection Check Valve	2998 G 078-130A	G-4	2	C	3	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V3523	2B HPSI Hot Leg Injection Isolation Valve	2998 G 078-130A	G-7	2	B	3	GL	MO	A	LC	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-V3524	2A HPSI Hot Leg Injection Check Valve	2998 G 078-131	B-5	1	A/C	3	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	2R			TP-07
												LT-S	PIV			
2-V3525	2A HPSI Hot Leg Injection Check Valve	2998 G 078-131	B-6	1	A/C	3	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	2R			TP-07
												LT-S	PIV			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3526	2B HPSI Hot Leg Injection Check Valve	2998 G 078-131	G-5	1	A/C	3	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	2R			TP-07
												LT-S	PIV			
2-V3527	2B HPSI Hot Leg Injection Check Valve	2998 G 078-131	G-6	1	A/C	3	CK	SA	A	C	O/C	CCL	PIV			TP-07
												COF	2R			TP-07
												LT-S	PIV			
2-V3536	2A Shutdown Cooling Warm up Line Isolation Valve	2998 G 078-131	D-2	2	B	4	GL	MO	A	LC	C	PIT	2Y			
												ST-C	3M			
2-V3539	2B Shutdown Cooling Warm up Line Isolation Valve	2998 G 078-131	F-2	2	B	4	GL	MO	A	LC	C	PIT	2Y			
												ST-C	3M			
2-V3540	2A HPSI Hot Leg Injection Isolation Valve	2998 G 078- 130A	C-7	2	B	3	GL	MO	A	LC	O/C	PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-O	3M			
2-V3545	Shutdown Cooling Header Cross Connect Valve	2998 G 078-131	D-6	1	B	10	GA	MO	P	LO	O	PIT	2Y			
2-V3547	2A HPSI Hot Leg Injection Check Valve	2998 G 078-130A	C-4	2	C	3	CK	SA	A	C	O/C	CCU	2R	TP-07		
												COF	2R	TP-07		
2-V3550	2A HPSI Hot Leg Injection Isolation Valve	2998 G 078-130A	C-6	2	B	3	GL	MO	A	LC	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-V3551	2B HPSI Hot Leg Injection Isolation Valve	2998 G 078-130A	G-6	2	B	3	GL	MO	A	LC	O/C	PIT	2Y			
												ST-C	3M			
												ST-O	3M			
2-V3570	Hot Leg Injection Header Relief Valve	2998 G 078-130A	E-6	2	C	1x2	RV	SA	A	C	O/C	RVT	10Y			
2-V3571	SIT Fill Line Isolation Valve	2998 G 078-131	G-6	1	B	1	GL	AO	A	C	C	FSC	3M	TP-03		
												PIT	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	3M			
2-V3572	SIT Fill Line Isolation Valve	2998 G 078-131	C-6	1	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-V3611	2A2 SI Tank Drain/Fill Isolation Valve	2998 G 078-132	C-6	2	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-V3612	2A2 SI Tank Nitrogen Supply Valve	2998 G 078-132	B-6	2	B	0.5	GL	AO	P	C	C	PIT	2Y			
2-V3614	2A2 SI Tank Outlet Isolation Valve	2998 G 078-132	C-6	1	B	12	GA	MO	P	LO	O	PIT	2Y			
2-V3621	2A1 SI Tank Drain/fill Isolation Valve	2998 G 078-132	C-3	2	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-V3622	2A1 SI Tank Nitrogen Supply Valve	2998 G 078-132	B-3	2	B	0.5	GL	AO	P	C	C	PIT	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3624	2A1 SI Tank Outlet Isolation Valve	2998 G 078-132	C-3	1	B	12	GA	MO	P	LO	O	PIT	2Y			
2-V3631	2B1 SI Tank Drain/Fill Isolation Valve	2998 G 078-132	G-3	2	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-V3632	2B1 SI Tank Nitrogen Supply Valve	2998 G 078-132	F-3	2	B	0.5	GL	AO	P	C	C	PIT	2Y			
2-V3634	2B1 SI Tank Outlet Isolation Valve	2998 G 078-132	G-3	1	B	12	GA	MO	P	LO	O	PIT	2Y			
2-V3641	2B2 SI Tank Drain/Fill Isolation Valve	2998 G 078-132	G-6	2	B	1	GL	AO	A	C	C	FSC	3M			TP-03
												PIT	2Y			
												ST-C	3M			
2-V3642	2B2 SI Tank Nitrogen Supply Valve	2998 G 078-132	F-6	2	B	0.5	GL	AO	P	C	C	PIT	2Y			
2-V3644	2B2 SI Tank Outlet Isolation Valve	2998 G 078-132	G-6	1	B	12	GA	MO	P	LO	O	PIT	2Y			
2-V3651	2B Shutdown Cooling Isolation Valve	2998 G 078-131	E-5	1	A	10	GA	MO	A	LC	O/C	LT-S	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												PIT	2Y			
												ST-C	CS	CS-08		
												ST-O	CS	CS-08		
2-V3652	2B Shutdown Cooling Isolation Valve	2998 G 078-131	E-7	1	A	10	GA	MO	A	LC	O/C	LT-S	2Y			
												PIT	2Y			
												ST-C	CS	CS-08		
												ST-O	CS	CS-08		
2-V3654	2B HPSI Pump Discharge Valve	2998 G 078-130A	F-4	2	B	6	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			
2-V3656	2A HPSI Pump Discharge Valve	2998 G 078-130A	B-4	2	B	6	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			
2-V3658	2B LPSI Pump Discharge to SDC Hx Valve	2998 G 078-130B	D-2	2	B	12	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M	TP-11		



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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3659	A Train SI Pump Common Mini Flow Isolation Valve	2998 G 078-130B	C-4	2	B	3	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			TP-11
2-V3660	B Train SI Pump Common Mini Flow Isolation Valve	2998 G 078-130B	C-3	2	B	3	GA	MO	A	LO	O/C	PIT	2Y			
												ST-C	3M			TP-11
2-V3661	SIT Outlet Drain to RDT 2A Control Valve	2998 G 078-130B	B-7	3	B	1	GA	AO	P	C	C	PIT	2Y			
2-V3664	Shutdown Cooling Header Isolation Valve	2998 G 078-131	D-3	2	B	10	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
2-V3665	Shutdown Cooling Header Isolation Valve	2998 G 078-131	E-4	2	B	10	GA	MO	A	LC	O/C	PIT	2Y			
												ST-O	3M			TP-11
2-V3666	Shutdown Cooling Suction Relief Valve	2998 G 078-131	D-4	2	C	6x8	RV	SA	A	C	O/C	RVT	10Y			
2-V3667	Shutdown Cooling Suction Relief Valve	2998 G 078-131	D-4	2	C	6x8	RV	SA	A	C	O/C	RVT	10Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3688	2A Shutdown Cooling to LPSI Header Relief Valve	2998 G 078-130B	C-5	2	C	2x3	RV	SA	A	C	O/C	RVT	10Y			TP-08
2-V3733	2A2 SI Tank Vent Valve	2998 G 078-132	B-5	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-14	TP-03
												PIT	2Y			
												ST-C	CS		CS-14	
												ST-O	CS		CS-14	
2-V3734	2A2 SI Tank Vent Valve	2998 G 078-132	B-5	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-14	TP-03
												PIT	2Y			
												ST-C	CS		CS-14	
												ST-O	CS		CS-14	
2-V3735	2A1 SI Tank Vent Valve	2998 G 078-132	B-2	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-14	TP-03
												PIT	2Y			
												ST-C	CS		CS-14	
												ST-O	CS		CS-14	

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V3736	2A1 SI Tank Vent Valve	2998 G 078-132	B-2	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-14	TP-03
												PIT	2Y			
												ST-C	CS		CS-14	
												ST-O	CS		CS-14	
2-V3737	2B1 SI Tank Vent Valve	2998 G 078-132	E-2	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-14	TP-03
												PIT	2Y			
												ST-C	CS		CS-14	
												ST-O	CS		CS-14	
2-V3738	2B1 SI Tank Vent Valve	2998 G 078-132	F-2	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-14	TP-03
												PIT	2Y			
												ST-C	CS		CS-14	
												ST-O	CS		CS-14	
2-V3739	2B2 SI Tank Vent Valve	2998 G 078-132	E-5	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-14	TP-03
												PIT	2Y			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
												ST-C	CS		CS-14	
												ST-O	CS		CS-14	
2-V3740	2B2 SI Tank Vent Valve	2998 G 078-132	F-5	2	B	1	GL	SO	A	LC	O/C	FSC	CS		CS-14	TP-03
												PIT	2Y			
												ST-C	CS		CS-14	
												ST-O	CS		CS-14	
2-V3766	HPSI 2A1 Cold Leg Injection Check Valve	2998 G 078-131	C-3	2	C	2	CK	SA	A	C	O	CCU	2R			TP-01, TP-07
												COF	2R			TP-07
2-V3767	2A LPSI Pump Recirc to RWT Iso Valve	2998 G 078-130B	F-4	2	B	2	GL	M	A	LO	O/C	ME	2Y			
2-LCV-07-11A	Containment Sump Pump Discharge Valve	2998 G 088-2	G-4	2	A	2	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-LCV-07-11B	Containment Sump Pump Discharge Valve	2998 G 088-2	G-3	2	A	2	GL	AO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-SR-07474	Containment Spray Rx Cavity Sump Discharge Thermal Relief	2998 G 088-2	F-4	2	A/C	0.75	RV	SA	A	C	O	LT-J	App J			
												RVT	10Y			TP-08
2-SR-07477	Containment Spray Rx Cavity Sump Discharge Thermal Relief	2998 G 088-2	F-5	4	N/A	0.75	RV	SA	N/A	C	N/A	RVT	10Y			TP-08
2-V6341	Reactor Drain Tank Pump Suction Isolation Valve (Pen P 43)	2998 G 078-160A	G-3	2	A	3	DIA	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V6342	Reactor Drain Tank Pump Suction Isolation Valve (Pen P 43)	2998 G 078-160A	G-4	2	A	3	DIA	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-V6718	QT/RDT Vent to Gas Surge Tank 2A Isolation Valve	2998 G 078-163A	B-3	2	A	1	DIA	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-V6741	Nitrogen Supply Containment Isolation Valve (Pen P 14)	2998 G 078-163B	D-4	2	A	1	GL	PO	A	C	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			

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Valve Number	Valve Name	P&ID	P&ID Coord.	Safe. Class	Cat.	Size	Valve Type	Act. Type	Act./ Pas.	Norm. Pos.	Safe. Pos.	Test Des.	Test Freq.	Rel. Req.	Def. Just.	Tech. Pos.
2-V6750	QT/RDT Vent to Gas Surge Tank 2A Isolation Valve	2998 G 078- 163A	B-3	2	A	1	DIA	AO	A	O	C	FSC	3M			TP-03
												LT-J	App J			
												PIT	2Y			
												ST-C	3M			
2-V6792	Nitrogen Supply Containment Isolation Valve. (Pen P 14)	2998 G 078- 163B	D-3	2	A/C	1	CK	SA	A	C	C	CCL	App J			TP-07
												COF	App J			TP-01, TP-07
												LT-J	App J			