

Oconee Nuclear Station ASME Inservice Testing Program

Revision 24

March 1996

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Oconee Nuclear Station

Inservice Testing Program Submittal - Pumps

3/27/96

Interval 3, Submittal Revision 24

Oconee Nuclear Station

Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
<i>BS - Building Spray</i>												
Reactor Building Spray Pump 1A	ON1BS PU0001	OFD-103A-1.1	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Reactor Building Spray Pump 1B	ON1BS PU0002	OFD-103A-1.1	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Reactor Building Spray Pump 2A	ON2BS PU0001	OFD-103A-2.1	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Reactor Building Spray Pump 2B	ON2BS PU0002	OFD-103A-2.1	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

Oconee Nuclear Station

Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
Reactor Building Spray Pump 3A	ON3BS PU0001	OFD-103A-3.1	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Reactor Building Spray Pump 3B	ON3BS PU0002	OFD-103A-3.1	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

Oconee Nuclear Station

Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
CCW - Condenser Cooling Water												
SSF Auxiliary Service Water Pump	ON0CCWPU0002	OFD-133A-2.5	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
SSF HVAC Service Water Pump	ON0CCWPU0003	OFD-133A-2.5	None	Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
SSF HVAC Service Water Pump	ON0CCWPU0004	OFD-133A-2.5	None	Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
SSF Diesel Engine Service Water Pump	ON0CCWPU0005	OFD-133A-2.5	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
SSF Submersible Pump	ON0CCWPU0010	OFD-133A-2.5	None	Tested once every two	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
SSF Submersible Pump (Spare)	ON0CCWPU0011	OFD-133A-2.5	None									
				Tested once every two	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
CS - Coolant Storage												
RC Bleed Transfer Pump 1A	ON1CS PU0003	OFD-106A-1.1	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
RC Bleed Transfer Pump 1B	ON1CS PU0004	OFD-106A-1.1	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Concentrated Boric Acid Transfer Pump 1	ON1CS PU0005	OFD-106A-1.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	GNR-PMP-02	Per Code	Per Code	GNR-PMP-06	None	24
RC Bleed Transfer Pump 2A	ON2CS PU0003	OFD-106A-2.2	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
RC Bleed Transfer Pump 2B	ON2CS PU0004	OFD-106A-2.1	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
Concentrated Boric Acid Transfer Pump 2	ON2CS PU0005	OFD-106A-2.1	None									
				Tested once quarterly	Per Code	GNR-PMP-01	GNR-PMP-02	Per Code	Per Code	GNR-PMP-06	None	24
RC Bleed Transfer Pump 3A	ON3CS PU0003	OFD-106A-3.2	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
RC Bleed Transfer Pump 3B	ON3CS PU0004	OFD-106A-3.2	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Concentrated Boric Acid Transfer Pump	ON3CS PU0005	OFD-106A-3.1	None									
				Tested once quarterly	Per Code	GNR-PMP-01	GNR-PMP-02	Per Code	Per Code	GNR-PMP-06	None	24
Concentrated Boric Acid Transfer Pump	ON3CS PU0006	OFD-106A-3.1	None									
				Tested once quarterly	Per Code	GNR-PMP-01	GNR-PMP-02	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
<i>FDW - Feedwater</i>												
Turbine Driven EFDW Pump 1	ON1FDWPU0003	OFD-121D-1.1	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP- 06	None	24
Motor Driven EFDW Pump 1A	ON1FDWPU0004	OFD-121D-1.1	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP- 06	None	24
Motor Driven EFDW Pump 1B	ON1FDWPU0005	OFD-121D-1.1	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP- 06	None	24
Turbine Driven EFDW Pump 2	ON2FDWPU0003	OFD-121D-2.1	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP- 06	None	24
Motor Driven EFDW Pump 2A	ON2FDWPU0004	OFD-121D-2.1	None									
				Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP- 06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
Motor Driven EFDW Pump 2B	ON2FDWPU0005	OFD-121D-2.1	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Turbine Driven EFDW Pump 3	ON3FDWPU0003	OFD-121D-3.1	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Motor Driven EFDW Pump 3A	ON3FDWPU0004	OFD-121D-3.1	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Motor Driven EFDW Pump 3B	ON3FDWPU0005	OFD-121D-3.1	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

FO - Fuel Oil

SSF Diesel Engine Fuel Oil Transfer	ON0FO PU0005	OFD-135A-1.2	None	Tested once quarterly	Per Code	Per Code	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
<i>HPI - High Pressure Injection</i>												
High Pressure Injection Pump 1A	ON1HPIPU0001	OFD-101A-1.3	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
High Pressure Injection Pump 1B	ON1HPIPU0002	OFD-101A-1.3	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
High Pressure Injection Pump 1C	ON1HPIPU0003	OFD-101A-1.3	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
SSF RC Makeup Pump 1	ON1HPIPU0005	OFD-101A-1.5	None									
				Tested once quarterly	Per Code	Per Code	GNR-PMP-02	Per Code	Per Code	GNR-PMP-06	None	24
High Pressure Injection Pump 2A	ON2HPIPU0001	OFD-101A-2.3	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
High Pressure Injection Pump 2B	ON2HPIPU0002	OFD-101A-2.3	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
High Pressure Injection Pump 2C	ON2HPIPU0003	OFD-101A-2.3	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
SSF RC Makeup Pump 2	ON2HPIPU0005	OFD-101A-2.5	None									
				Tested once quarterly	Per Code	Per Code	GNR-PMP-02	Per Code	Per Code	GNR-PMP-06	None	24
High Pressure Injection Pump 3A	ON3HPIPU0001	OFD-101A-3.3	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
High Pressure Injection Pump 3B	ON3HPIPU0002	OFD-101A-3.3	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
High Pressure Injection Pump 3C	ON3HPIPU0003	OFD-101A-3.3	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
SSF RC Makeup Pump 3	ON3HPIPU0005	OFD-101A-3.5	None	Tested once quarterly	Per Code	Per Code	GNR-PMP-02	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
<i>LPI - Low Pressure Injection</i>												
Low Pressure Injection Pump 1A	ON1LPIPU0001	OFD-102A-1.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Injection Pump 1B	ON1LPIPU0002	OFD-102A-1.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Injection Pump 1C	ON1LPIPU0003	OFD-102A-1.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Injection Pump 2A	ON2LPIPU0001	OFD-102A-2.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Injection Pump 2B	ON2LPIPU0002	OFD-102A-2.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
Low Pressure Injection Pump 2C	ON2LPIPU0003	OFD-102A-2.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Injection Pump 3A	ON3LPIPU0001	OFD-102A-3.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Injection Pump 3B	ON3LPIPU0002	OFD-102A-3.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Injection Pump 3C	ON3LPIPU0003	OFD-102A-3.2	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
<i>LPSW - Low Pressure Service Water</i>												
Low Pressure Service Water Pump 1A	ON1LPSPU0001	OFD-124A-1.1	None	Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Service Water Pump 1B	ON1LPSPU0002	OFD-124A-1.1	None	Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Service Water Pump 1C	ON1LPSPU0003	OFD-124A-1.1	None	Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Service Water Pump 3A	ON3LPSPU0001	OFD-124A-3.1	None	Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24
Low Pressure Service Water Pump 3B	ON3LPSPU0002	OFD-124A-3.1	None	Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	None	24

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Description	Equipment ID	Flow Diagram	JOD	Test Frequency	Speed	Inlet Press	DP	Vib	Flow Rate	Bearing Temp	Specific RR	Rev
<i>TS - Keowee Turbine Sump</i>												
AC Turbine Sump Pump 1	K1TSPU088SA	KFD-102A-1.1	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	RR-PMP-05	24
DC Turbine Sump Pump 1	K1TSPU088SD	KFD-102A-1.1	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	RR-PMP-05	24
AC Turbine Sump Pump 2	K2TSPU088SA	KFD-102A-2.1	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	RR-PMP-05	24
DC Turbine Sump Pump 2	K2TSPU088SD	KFD-102A-2.1	None									
				Tested once quarterly	Per Code	GNR-PMP-01	Per Code	Per Code	Per Code	GNR-PMP-06	RR-PMP-05	24

Oconee Nuclear Station

Inservice Testing Program Submittal - Valves

3/27/96

Interval 3, Submittal Revision 24

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
AB - Air Circuit Breaker System													
1AB-013	KFD-107A-1.1 J2	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
1AB-014	KFD-107A-1.1 J3	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
1AB-015	KFD-107A-1.1 K3	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
2AB-023	KFD-107A-1.1 J12	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
2AB-024	KFD-107A-1.1 J13	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
2AB-025	KFD-107A-1.1 K13	C	A	Yes	Solenoid	Solenoid	None	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1AB-033	KFD-107A-1.1 J5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1AB-034	KFD-107A-1.1 J6	C	A	Yes	Solenoid	Solenoid	None	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1AB-035	KFD-107A-1.1 K6	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Both (Leak Test)	Q	Tested once quarterly	None
2AB-043	KFD-107A-1.1 J9	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
2AB-044	KFD-107A-1.1 J9	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
2AB-045	KFD-107A-1.1 K9	C	A	Yes	Solenoid	Solenoid	None	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
AG - Keowee Governor Air System													
1AG-003	KFD-104A-1.1 G7	C	B	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
2AG-003	KFD-104A-2.1 G7	C	B	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
1AG-004	KFD-104A-1.1 G8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2AG-004	KFD-104A-2.1 G8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
AS - Auxiliary Steam System													
1AS-039	OFD-122A-1.4 H6	C	C	Yes	Check	Self Actuated	ON-AS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
2AS-039	OFD-122A-2.4 H6	C	C	Yes	Check	Self Actuated	ON-AS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
3AS-039	OFD-122A-3.4 H6	C	C	Yes	Check	Self Actuated	ON-AS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
BA - Breathing Air System													
1BA-171	OFD-137A-1.3 G2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2BA-171	OFD-137A-2.3 K2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3BA-171	OFD-137A-3.3 F2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1BA-172	OFD-137A-1.3 G2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2BA-172	OFD-137A-2.3 K3	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3BA-172	OFD-137A-3.3 F2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Oconee Nuclear Station

Inservice Testing Program Submittal - Valves

3/27/96

Interval 3, Submittal Revision 24

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
AB - Air Circuit Breaker System													
1AB-013	KFD-107A-1.1 J2	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
1AB-014	KFD-107A-1.1 J3	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
1AB-015	KFD-107A-1.1 K3	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
2AB-023	KFD-107A-1.1 J12	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
2AB-024	KFD-107A-1.1 J13	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
2AB-025	KFD-107A-1.1 K13	C	A	Yes	Solenoid	Solenoid	None	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1AB-033	KFD-107A-1.1 J5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1AB-034	KFD-107A-1.1 J6	C	A	Yes	Solenoid	Solenoid	None	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1AB-035	KFD-107A-1.1 K6	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Both (Leak Test)	Q	Tested once quarterly	None
2AB-043	KFD-107A-1.1 J9	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2AB-044	KFD-107A-1.1 J9	C	A	Yes	Solenoid	Solenoid	None	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2AB-045	KFD-107A-1.1 K9	C	A	Yes	Solenoid	Solenoid	None	LT	Leak-Rate Test Valve to Section XI Requirement(s)	NA	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>AG - Keowee Governor Air System</i>													
1AG-003	KFD-104A-1.1 G7	C	B	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
2AG-003	KFD-104A-2.1 G7	C	B	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	NA	Q	Tested once quarterly	None
1AG-004	KFD-104A-1.1 G8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2AG-004	KFD-104A-2.1 G8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
AS - Auxiliary Steam System													
1AS-039	OFD-122A-1.4 H6	C	C	Yes	Check	Self Actuated	ON-AS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
2AS-039	OFD-122A-2.4 H6	C	C	Yes	Check	Self Actuated	ON-AS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
3AS-039	OFD-122A-3.4 H6	C	C	Yes	Check	Self Actuated	ON-AS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>BA - Breathing Air System</i>													
1BA-171	OFD-137A-1.3 G2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2BA-171	OFD-137A-2.3 K2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3BA-171	OFD-137A-3.3 F2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1BA-172	OFD-137A-1.3 G2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2BA-172	OFD-137A-2.3 K3	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3BA-172	OFD-137A-3.3 F2	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>BS - Building Spray System</i>													
1BS-001	OFD-103A-1.1 J8	B	B	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2BS-001	OFD-103A-2.1 J8	B	B	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3BS-001	OFD-103A-3.1 J8	B	B	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1BS-002	OFD-103A-1.1 E8	B	B	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2BS-002	OFD-103A-2.1 E8	B	B	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3BS-002	OFD-103A-3.1 E8	B	B	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2BS-005	OFD-102A-2.1 E8	B	C	Yes	Check	Self Actuated	None	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	RR-VLV-011
2BS-006	OFD-102A-2.1 C10	B	C	Yes	Check	Self Actuated	None	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	RR-VLV-011
1BS-011	OFD-103A-1.1 J6	B	C	Yes	Check	Self Actuated	ON-BS-01	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
2BS-011	OFD-103A-2.1 J6	B	C	Yes	Check	Self Actuated	ON-BS-01	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3BS-011	OFD-103A-3.1 J6	B	C	Yes	Check	Self Actuated	ON-BS-01	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
1BS-014	OFD-103A-1.1 J10	B	C	Yes	Check	Self Actuated	ON-BS-02	PS	Partial-Stroke Exercise Valve	Closed to Open	RF	Tested every refueling outage	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
2BS-014	OFD-103A-2.1 J10	B	C	Yes	Check	Self Actuated	ON-BS-02	PS	Partial-Stroke Exercise Valve	Closed to Open	RF	Tested every refueling outage	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
3BS-014	OFD-103A-3.1 J10	B	C	Yes	Check	Self Actuated	ON-BS-02	PS	Partial-Stroke Exercise Valve	Closed to Open	RF	Tested every refueling outage	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
1BS-016	OFD-103A-1.1 E6	B	C	Yes	Check	Self Actuated	ON-BS-01	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
2BS-016	OFD-103A-2.1 E6	B	C	Yes	Check	Self Actuated	ON-BS-01	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
3BS-016	OFD-103A-3.1 E6	B	C	Yes	Check	Self Actuated	ON-BS-01	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
1BS-019	OFD-103A-1.1 E10	B	C	Yes	Check	Self Actuated	ON-BS-02	PS	Partial-Stroke Exercise Valve	Closed to Open	RF	Tested every refueling outage	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2BS-019	OFD-103A-2.1 E10	B	C	Yes	Check	Self Actuated	ON-BS-02	PS	Partial-Stroke Exercise Valve	Closed to Open	RF	Tested every refueling outage	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
3BS-019	OFD-103A-3.1 E10	B	C	Yes	Check	Self Actuated	ON-BS-02	PS	Partial-Stroke Exercise Valve	Closed to Open	RF	Tested every refueling outage	None
								SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
C - Condensate System													
1C-176	OFD-121A-1.8 I7	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2C-176	OFD-121A-2.8 I7	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3C-176	OFD-121A-3.8 I7	C	B	Yes	Ball	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1C-187	OFD-121A-1.8 G7	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2C-187	OFD-121A-2.8 G7	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3C-187	OFD-121A-3.8 G7	C	B	Yes	Ball	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1C-192	OFD-121A-1.8 J7	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2C-192	OFD-121A-2.8 J7	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3C-192	OFD-121A-3.8 J7	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1C-391	OFD-121A-1.8 J11	C	B	Yes	Gate	Limiterque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2C-391	OFD-121A-2.8 J11	C	B	Yes	Gate	Limiterque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3C-391	OFD-121A-3.8 J11	C	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1C-572	OFD-121A-1.8 E7	C	C	Yes	Check	Self Actuated	ON-C-02	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2C-572	OFD-121A-2.8 E6	C	C	Yes	Check	Self Actuated	ON-C-02	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3C-572	OFD-121A-3.8 E7	C	C	Yes	Check	Self Actuated	ON-C-02	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1C-573	OFD-121A-1.8 E7	C	B	Yes	Gate	Manual	ON-C-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
2C-573	OFD-121A-2.8 D6	C	B	Yes	Gate	Manual	ON-C-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
3C-573	OFD-121A-3.8 D7	C	B	Yes	Gate	Manual	ON-C-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
1C-850	OFD-121A-1.8 D4	C	C	Yes	Check	Self Actuated	ON-C-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2C-850	OFD-121A-2.8 D4	C	C	Yes	Check	Self Actuated	ON-C-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3C-850	OFD-121A-3.8 D4	C	C	Yes	Check	Self Actuated	ON-C-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1C-852	OFD-121A-1.8 C4	C	C	Yes	Check	Self Actuated	ON-C-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2C-852	OFD-121A-2.8 C4	C	C	Yes	Check	Self Actuated	ON-C-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3C-852	OFD-121A-3.8 C4	C	C	Yes	Check	Self Actuated	ON-C-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
CA - Chemical Addition System													
1CA-027	OFD-127B-1.2 G7	B	A	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CA-027	OFD-127B-2.2 G7	B	A	Yes	Gate	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CA-027	OFD-127B-3.2 G7	B	A	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CA-029	OFD-127B-1.2 J7	B	A	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CA-029	OFD-127B-2.2 J7	B	A	Yes	Gate	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CA-029	OFD-127B-3.2 J7	B	A	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
CC - Component Cooling System													
1CC-007	OFD-144A-1.2 D13	B	A	Yes	Butterfly	Limitorque	ON-CC-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CC-007	OFD-144A-2.2 D11	B	A	Yes	Butterfly	Limitorque	ON-CC-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CC-007	OFD-144A-3.2 D11	B	A	Yes	Butterfly	Limitorque	ON-CC-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CC-008	OFD-144A-1.2 D13	B	A	Yes	Butterfly	Air	ON-CC-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CC-008	OFD-144A-2.2 D13	B	A	Yes	Butterfly	Air	ON-CC-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CC-008	OFD-144A-3.2 D13	B	A	Yes	Butterfly	Air	ON-CC-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CC-020	OFD-144A-1.2 D4	B	A/C	Yes	Check	Self Actuated	ON-CC-02	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2CC-020	OFD-144A-2.2 D3	B	A/C	Yes	Check	Self Actuated	ON-CC-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CC-020	OFD-144A-3.2 D3	B	A/C	Yes	Check	Self Actuated	ON-CC-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CC-024	OFD-144A-1.2 D2	B	A/C	Yes	Check	Self Actuated	ON-CC-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CC-024	OFD-144A-2.2 D1	B	A/C	Yes	Check	Self Actuated	ON-CC-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CC-024	OFD-144A-3.2 D1	B	A/C	Yes	Check	Self Actuated	ON-CC-02	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
1CC-028	OFD-144A-1.2 J8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2CC-028	OFD-144A-2.2 L7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3CC-028	OFD-144A-3.2 L7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1CC-032	OFD-144A-1.2 I8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2CC-032	OFD-144A-2.2 K7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3CC-032	OFD-144A-3.2 K7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1CC-036	OFD-144A-1.2 H8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2CC-036	OFD-144A-2.2 J7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3CC-036	OFD-144A-3.2 J7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1CC-040	OFD-144A-1.2 G8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2CC-040	OFD-144A-2.2 H7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3CC-040	OFD-144A-3.2 H7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1CC-076	OFD-144A-1.3 H6	B	A/C	Yes	Check	Self Actuated	ON-CC-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CC-076	OFD-144A-2.3 H6	B	A/C	Yes	Check	Self Actuated	ON-CC-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3CC-076	OFD-144A-3.3 H6	B	A/C	Yes	Check	Self Actuated	ON-CC-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CC-077	OFD-144A-1.3 H7	B	A/C	Yes	Check	Self Actuated	ON-CC-02	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
2CC-077	OFD-144A-2.3 H7	B	A/C	Yes	Check	Self Actuated	ON-CC-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CC-077	OFD-144A-3.3 H7	B	A/C	Yes	Check	Self Actuated	ON-CC-02	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
CCW - Condenser Cooling Water System													
1CCW-001	OFD-133A-1.2 I2	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1CCW-002	OFD-133A-1.2 I4	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1CCW-003	OFD-133A-1.2 I6	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1CCW-004	OFD-133A-1.2 I7	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1CCW-005	OFD-133A-1.2 I9	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1CCW-006	OFD-133A-1.2 I11	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2CCW-007	OFD-133A-2.2 D2	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
CCW-008	OFD-133A-3.2 B1	C	B	Yes	Butterfly	Motor - Other	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1CCW-010	OFD-133A-1.1 J2	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2CCW-010	OFD-133A-2.1 J2	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3CCW-010	OFD-133A-3.1 J2	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1CCW-011	OFD-133A-1.1 J5	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2CCW-011	OFD-133A-2.1 J5	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3CCW-011	OFD-133A-3.1 J5	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1CCW-012	OFD-133A-1.1 J7	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2CCW-012	OFD-133A-2.1 J7	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3CCW-012	OFD-133A-3.1 J7	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1CCW-013	OFD-133A-1.1 J10	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2CCW-013	OFD-133A-2.1 J10	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3CCW-013	OFD-133A-3.1 J10	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3CCW-093	OFD-133A-3.2 D2	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1CCW-268-SSF	OFD-133A-2.5 H14	C	B	Yes	Globe	Rotork	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2CCW-268-SSF	OFD-133A-2.5 H13	C	B	Yes	Globe	Rotork	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3CCW-268-SSF	OFD-133A-2.5 H12	C	B	Yes	Globe	Rotork	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1CCW-269-SSF	OFD-121D-1.1 G13	C	B	Yes	Gate	Rotork	ON-SSF-01	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
2CCW-269-SSF	OFD-121D-2.1 G13	C	B	Yes	Gate	Rotork	ON-SSF-01	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
3CCW-269-SSF	OFD-121D-3.1 G13	C	B	Yes	Globe	Rotork	ON-SSF-01	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
CCW-271-SSF	OFD-133A-2.5 H5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
CCW-274-SSF	OFD-133A-2.5 J6	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
CCW-284-SSF	OFD-133A-2.5 G6	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
CCW-286-SSF	OFD-133A-2.5 G10	C	B	Yes	Gate	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
1CCW-287-SSF	OFD-133A-2.5 G14	C	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	RF	Tested every refueling outage	None
2CCW-287-SSF	OFD-133A-2.5 G13	C	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3CCW-287-SSF	OFD-133A-2.5 G12	C	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
CCW-289-SSF	OFD-133A-2.5 J9	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
CCW-382-SSF	OFD-133A-2.5 L4	C	B	Yes	Ball	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
CCW-384-SSF	OFD-133A-2.5 F10	C	B	Yes	Gate	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
CF - Core Flood System													
1CF-003	OFD-102A-1.3 G9	B	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CF-003	OFD-102A-2.3 G10	B	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CF-003	OFD-102A-3.3 G9	B	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CF-004	OFD-102A-1.3 G5	B	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CF-004	OFD-102A-2.3 G4	B	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CF-004	OFD-102A-3.3 G5	B	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CF-007	OFD-102A-1.3 G4	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CF-007	OFD-102A-2.3 F3	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3CF-007	OFD-102A-3.3 G4	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CF-011	OFD-102A-1.3 E10	A	A/C	Yes	Check	Self Actuated	ON-CF-01	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-010
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2CF-011	OFD-102A-2.3 D10	A	A/C	Yes	Check	Self Actuated	ON-CF-01	LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-010
								PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3CF-011	OFD-102A-3.3 E10	A	A/C	Yes	Check	Self Actuated	ON-CF-01	LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-010
								PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1CF-012	OFD-102A-1.3 D9	A	A/C	Yes	Check	Self Actuated	ON-CF-02	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-017
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2CF-012	OFD-102A-2.3 D10	A	A/C	Yes	Check	Self Actuated	ON-CF-02	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-017
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3CF-012	OFD-102A-3.3 D9	A	A/C	Yes	Check	Self Actuated	ON-CF-02	LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-017
								PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1CF-013	OFD-102A-1.3 E6	A	A/C	Yes	Check	Self Actuated	ON-CF-01	LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-010
								PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2CF-013	OFD-102A-2.3 D6	A	A/C	Yes	Check	Self Actuated	ON-CF-01	LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-010
								PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3CF-013	OFD-102A-3.3 E6	A	A/C	Yes	Check	Self Actuated	ON-CF-01	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-010
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1CF-014	OFD-102A-1.3 D7	A	A/C	Yes	Check	Self Actuated	ON-CF-02	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-017
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2CF-014	OFD-102A-2.3 D6	A	A/C	Yes	Check	Self Actuated	ON-CF-02	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-017
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3CF-014	OFD-102A-3.3 D7	A	A/C	Yes	Check	Self Actuated	ON-CF-02	LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	SRR-VLV-017
								PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1CF-015	OFD-102A-1.3 J10	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2CF-015	OFD-102A-2.3 H19	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3CF-015	OFD-102A-3.3 I10	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1CF-017	OFD-102A-1.3 I6	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2CF-017	OFD-102A-2.3 H6	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3CF-017	OFD-102A-3.3 I6	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1CF-019	OFD-102A-1.3 G4	B	A	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2CF-019	OFD-102A-2.3 G3	B	A	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CF-019	OFD-102A-3.3 G4	B	A	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CF-042	OFD-127B-1.2 G11	B	A/C	Yes	Check	Self Actuated	ON-CF-03	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
2CF-042	OFD-127B-2.2 G11	B	A/C	Yes	Check	Self Actuated	ON-CF-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CF-042	OFD-127B-3.2 G11	B	A/C	Yes	Check	Self Actuated	ON-CF-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CF-044	OFD-127B-1.2 J11	B	A/C	Yes	Check	Self Actuated	ON-CF-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CF-044	OFD-127B-2.2 J11	B	A/C	Yes	Check	Self Actuated	ON-CF-03	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
3CF-044	OFD-127B-3.2 J11	B	A/C	Yes	Check	Self Actuated	ON-CF-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
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Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
CS - Coolant Storage System													
1CS-005	OFD-107A-1.2 D5	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CS-005	OFD-107A-2.2 D5	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CS-005	OFD-107A-3.2 D5	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CS-006	OFD-107A-1.2 D8	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2CS-006	OFD-107A-2.2 D8	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CS-006	OFD-107A-3.2 D8	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1CS-011	OFD-107A-1.1 J2	B	A/C	Yes	Check	Self Actuated	ON-CS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2CS-011	OFD-107A-2.1 J2	B	A/C	Yes	Check	Self Actuated	ON-CS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CS-011	OFD-107A-3.1 J3	B	A/C	Yes	Check	Self Actuated	ON-CS-01	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
1CS-012	OFD-107A-1.1 J5	B	A/C	Yes	Check	Self Actuated	ON-CS-01	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
2CS-012	OFD-107A-2.1 J5	B	A/C	Yes	Check	Self Actuated	ON-CS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3CS-012	OFD-107A-3.1 J5	B	A/C	Yes	Check	Self Actuated	ON-CS-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
DA - Diesel Air System													
DA-006	OFD-137D-1.1 F4	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
DA-011	OFD-137D-1.1 F7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
DA-016	OFD-137D-1.2 F4	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
DA-021	OFD-137D-1.2 F7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
DW - Demineralized Water System													
1DW-059	OFD-106E-1.1 H2	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2DW-059	OFD-106E-2.1 H3	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3DW-059	OFD-106E-3.1 H2	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1DW-060	OFD-106E-1.1 H3	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2DW-060	OFD-106E-2.1 H4	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3DW-060	OFD-106E-3.1 H4	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1DW-155	OFD-106E-1.1 E3	B	A/C	No	Check	Self Actuated	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1DW-156	OFD-106E-1.1 E4	B	A/C	No	Check	Self Actuated	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
FDW - Feedwater System													
1FDW-032	OFD-121B-1.3 J7	C	B	Yes	Globe	Air	ON-FDW-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2FDW-032	OFD-121B-2.3 J6	C	B	Yes	Globe	Air	ON-FDW-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3FDW-032	OFD-121B-3.3 J7	C	B	Yes	Globe	Air	ON-FDW-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1FDW-033	OFD-121B-1.3 J6	C	B	Yes	Gate	Limitorque	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2FDW-033	OFD-121B-2.3 K5	C	B	Yes	Gate	Limitorque	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3FDW-033	OFD-121B-3.3 K6	C	B	Yes	Gate	Limitorque	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1FDW-035	OFD-121B-1.3 L7	C	B	Yes	Globe	Air	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2FDW-035	OFD-121B-2.3 K6	C	B	Yes	Globe	Air	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3FDW-035	OFD-121B-3.3 K7	C	B	Yes	Globe	Air	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1FDW-039	OFD-121D-1.1 J10	B	C	Yes	Check	Self Actuated	ON-FDW-04	SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
2FDW-039	OFD-121D-2.1 J10	B	C	Yes	Check	Self Actuated	ON-FDW-04	SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3FDW-039	OFD-121D-3.1 J10	B	C	Yes	Check	Self Actuated	ON-FDW-04	SD	Sample Disassembly	Both (Stroke Test)	SD	Disassem one vlv per grp ea. RFO	None
1FDW-041	OFD-121B-1.3 D7	C	B	Yes	Globe	Air	ON-FDW-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2FDW-041	OFD-121B-2.3 D5	C	B	Yes	Globe	Air	ON-FDW-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3FDW-041	OFD-121B-3.3 D7	C	B	Yes	Globe	Air	ON-FDW-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1FDW-042	OFD-121B-1.3 E6	C	B	Yes	Gate	Limitorque	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2FDW-042	OFD-121B-2.3 E5	C	B	Yes	Gate	Limitorque	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3FDW-042	OFD-121B-3.3 E6	C	B	Yes	Gate	Limitorque	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1FDW-044	OFD-121B-1.3 F7	C	B	Yes	Globe	Air	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2FDW-044	OFD-121B-2.3 F7	C	B	Yes	Globe	Air	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3FDW-044	OFD-121B-3.3 F7	C	B	Yes	Globe	Air	ON-FDW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1FDW-103	OFD-121B-1.5 K8	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2FDW-103	OFD-121B-2.5 J9	B	A	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3FDW-103	OFD-121B-3.5 J9	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FDW-104	OFD-121B-1.5 C8	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FDW-104	OFD-121B-2.5 C9	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3FDW-104	OFD-121B-3.5 D9	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FDW-105	OFD-110A-1.1 D2	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FDW-105	OFD-110A-2.1 F3	B	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3FDW-105	OFD-110A-3.1 D2	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1FDW-106	OFD-110A-1.1 D6	B	A	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FDW-106	OFD-110A-2.1 F6	B	A	Yes	Gate	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3FDW-106	OFD-110A-3.1 D6	B	A	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FDW-107	OFD-110A-1.1 F3	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FDW-107	OFD-110A-2.1 D3	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3FDW-107	OFD-110A-3.1 F3	B	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FDW-108	OFD-110A-1.1 F6	B	A	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FDW-108	OFD-110A-2.1 D6	B	A	Yes	Gate	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3FDW-108	OFD-110A-3.1 F6	B	A	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FDW-232	OFD-121D-1.1 K13	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2FDW-232	OFD-121D-2.1 K13	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3FDW-232	OFD-121D-3.1 K13	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1FDW-233	OFD-121D-1.1 D13	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2FDW-233	OFD-121D-2.1 D13	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3FDW-233	OFD-121D-3.1 D13	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1FDW-311	OFD-121D-1.1 J6	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
2FDW-311	OFD-121D-2.1 J6	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
3FDW-311	OFD-121D-3.1 I6	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
1FDW-312	OFD-121D-1.1 E6	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
2FDW-312	OFD-121D-2.1 E7	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3FDW-312	OFD-121D-3.1 E6	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
1FDW-315	OFD-121D-1.1 K10	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2FDW-315	OFD-121D-2.1 K10	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3FDW-315	OFD-121D-3.1 K10	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1FDW-316	OFD-121D-1.1 D10	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2FDW-316	OFD-121D-2.1 D10	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3FDW-316	OFD-121D-3.1 D10	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1FDW-317	OFD-121D-1.1 K10	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2FDW-317	OFD-121D-2.1 K10	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3FDW-317	OFD-121D-3.1 K10	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1FDW-318	OFD-121D-1.1 D10	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2FDW-318	OFD-121D-2.1 D10	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3FDW-318	OFD-121D-3.1 D10	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1FDW-329	OFD-121B-1.5 J8	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FDW-329	OFD-121B-2.5 I8	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3FDW-329	OFD-121B-3.5 J8	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FDW-331	OFD-121B-1.5 D8	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FDW-331	OFD-121B-2.5 C8	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3FDW-331	OFD-121B-3.5 D8	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FDW-334	OFD-121B-1.5 L6	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FDW-334	OFD-121B-2.5 K7	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3FDW-334	OFD-121B-3.5 L6	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FDW-335	OFD-121B-1.5 C6	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FDW-335	OFD-121B-2.5 C6	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3FDW-335	OFD-121B-3.5 C6	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FDW-345	OFD-121D-1.1 K12	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2FDW-345	OFD-121D-2.1 K12	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3FDW-345	OFD-121D-3.1 K13	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1FDW-346	OFD-121D-1.1 D12	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2FDW-346	OFD-121D-2.1 D12	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3FDW-346	OFD-121D-3.1 D12	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1FDW-347-SSF	OFD-121D-1.1 D13	C	B	Yes	Gate	Rotork	ON-SSF-05	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
2FDW-347-SSF	OFD-121D-2.1 D13	C	B	Yes	Gate	Rotork	ON-SSF-05	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
3FDW-347-SSF	OFD-121D-3.1 D13	C	B	Yes	Globe	Rotork	ON-SSF-05	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
1FDW-370	OFD-121D-1.1 K3	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2FDW-370	OFD-121D-2.1 K3	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3FDW-370	OFD-121D-3.1 K4	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1FDW-372	OFD-121D-1.1 K7	C	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2FDW-372	OFD-121D-2.1 K7	C	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3FDW-372	OFD-121D-3.1 K7	C	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1FDW-373	OFD-121D-1.1 K7	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
2FDW-373	OFD-121D-2.1 K7	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
3FDW-373	OFD-121D-3.1 K7	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
1FDW-378	OFD-121D-1.1 K3	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2FDW-378	OFD-121D-2.1 K3	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
3FDW-378	OFD-121D-3.1 J4	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1FDW-380	OFD-121D-1.1 D3	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2FDW-380	OFD-121D-2.1 D3	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3FDW-380	OFD-121D-3.1 D4	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1FDW-382	OFD-121D-1.1 D7	C	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	RF	Tested every refueling outage	None
2FDW-382	OFD-121D-2.1 D7	C	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3FDW-382	OFD-121D-3.1 D7	C	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1FDW-383	OFD-121D-1.1 D7	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
2FDW-383	OFD-121D-2.1 D6	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
3FDW-383	OFD-121D-3.1 D7	C	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
1FDW-388	OFD-121D-1.1 D3	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2FDW-388	OFD-121D-2.1 D3	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
3FDW-388	OFD-121D-3.1 D4	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1FDW-432	OFD-121D-1.1 F10	C	C	Yes	Check	Self Actuated	ON-FDW-04	SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
2FDW-432	OFD-121D-2.1 E10	C	C	Yes	Check	Self Actuated	ON-FDW-04	SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3FDW-432	OFD-121D-3.1 E10	B	C	Yes	Check	Self Actuated	ON-FDW-04	SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
1FDW-442	OFD-121D-1.1 D11	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
2FDW-442	OFD-121D-2.1 D11	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
3FDW-442	OFD-121D-3.1 D11	B	C	Yes	Check	Self Actuated	ON-FDW-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>FO - Fuel Oil System</i>													
FO-050	OFD-135A-1.2 D7	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
FO-052	OFD-135A-1.2 E5	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>FW - Filtered Water System</i>													
1FW-064	OFD-106E-1.1 J2	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2FW-064	OFD-106E-2.1 J3	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3FW-064	OFD-106E-3.1 J3	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1FW-065	OFD-106E-1.1 J4	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
2FW-065	OFD-106E-2.1 J6	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3FW-065	OFD-106E-3.1 J4	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>GBO - Keowee Turb. Guide Bearing Oil System</i>													
1GBO-001	KFD-101A-1.1 E5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2GBO-001	KFD-101A-2.1 E5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1GBO-003	KFD-101A-1.1 E5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2GBO-003	KFD-101A-2.1 E5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
GWD - Gaseous Waste Disposal System													
1GWD-012	OFD-107A-1.1 J11	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
2GWD-012	OFD-107A-2.1 J11	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3GWD-012	OFD-107A-3.1 J11	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
1GWD-013	OFD-107A-1.1 K13	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2GWD-013	OFD-107A-2.1 K13	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3GWD-013	OFD-107A-3.1 K13	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
HPI - High Pressure Injection System													
1HP-003	<i>OFD-101A-1.1 L5</i>	<i>A</i>	<i>A</i>	<i>Yes</i>	<i>Globe</i>	<i>Limitorque</i>	<i>ON-HP-07</i>	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-003	<i>OFD-101A-2.1 L5</i>	<i>A</i>	<i>A</i>	<i>Yes</i>	<i>Globe</i>	<i>Limitorque</i>	<i>ON-HP-07</i>	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-003	<i>OFD-101A-3.1 K5</i>	<i>A</i>	<i>A</i>	<i>Yes</i>	<i>Globe</i>	<i>Limitorque</i>	<i>ON-HP-07</i>	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-004	<i>OFD-101A-1.1 J5</i>	<i>A</i>	<i>A</i>	<i>Yes</i>	<i>Globe</i>	<i>Limitorque</i>	<i>ON-HP-07</i>	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-004	<i>OFD-101A-2.1 J5</i>	<i>A</i>	<i>A</i>	<i>Yes</i>	<i>Globe</i>	<i>Limitorque</i>	<i>ON-HP-07</i>	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-004	<i>OFD-101A-3.1 J5</i>	<i>A</i>	<i>A</i>	<i>Yes</i>	<i>Globe</i>	<i>Limitorque</i>	<i>ON-HP-07</i>	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-005	<i>OFD-101A-1.1 K8</i>	<i>B</i>	<i>A</i>	<i>Yes</i>	<i>Globe</i>	<i>Air</i>	<i>ON-HP-01</i>	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2HP-005	OFD-101A-2.1 K8	B	A	Yes	Globe	Air	ON-HP-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-005	OFD-101A-3.1 K8	B	A	Yes	Globe	Air	ON-HP-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-020	OFD-101A-1.1 F5	B	A	Yes	Globe	Limitorque	ON-HP-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-020	OFD-101A-2.1 E6	B	A	Yes	Globe	Limitorque	ON-HP-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-020	OFD-101A-3.1 E6	B	A	Yes	Globe	Limitorque	ON-HP-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-021	OFD-101A-1.1 E7	B	A	Yes	Globe	Air	ON-HP-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-021	OFD-101A-2.1 E8	B	A	Yes	Globe	Air	ON-HP-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-021	OFD-101A-3.1 E7	B	A	Yes	Globe	Air	ON-HP-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-024	OFD-101A-1.3 I3	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2HP-024	OFD-101A-2.3 I3	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3HP-024	OFD-101A-3.3 I2	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1HP-025	OFD-101A-1.3 F3	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2HP-025	OFD-101A-2.3 F3	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3HP-025	OFD-101A-3.3 F3	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1HP-026	OFD-101A-1.4 J7	B	B	Yes	Globe	Limitorque	ON-HP-03	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
2HP-026	OFD-101A-2.4 J7	B	B	Yes	Globe	Limitorque	ON-HP-03	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
3HP-026	OFD-101A-3.4 J6	B	B	Yes	Globe	Limitorque	ON-HP-03	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
1HP-027	OFD-101A-1.4 D7	B	B	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2HP-027	OFD-101A-2.4 D7	B	B	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3HP-027	OFD-101A-3.4 D7	B	B	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-043	OFD-101A-1.1 J13	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-043	OFD-101A-2.1 J13	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-043	OFD-101A-3.1 J13	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-045	OFD-109A-1.1 G3	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-045	OFD-109A-1.1 G10	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-045	OFD-109A-3.1 H4	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-048	OFD-109A-3.1 H9	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
HP-048	OFD-109A-1.1 G7	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-055	OFD-101A-1.2 H2	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-055	OFD-101A-2.2 H2	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-055	OFD-101A-3.2 H2	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-056	OFD-101A-1.2 H10	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2HP-056	OFD-101A-2.2 H9	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-056	OFD-101A-3.2 H9	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-071	OFD-101A-1.1 F10	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-071	OFD-101A-2.1 F10	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-071	OFD-101A-3.1 F10	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-078	OFD-101A-1.2 F6	B	C	Yes	Stop Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2HP-078	OFD-101A-2.2 F6	B	C	Yes	Stop Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
3HP-078	OFD-101A-3.2 F6	B	C	Yes	Stop Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1HP-079	OFD-101A-1.2 C10	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-079	OFD-101A-2.2 C8	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-079	OFD-101A-3.2 C11	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-097	OFD-101A-1.2 D12	B	A/C	Yes	Check	Self Actuated	ON-HP-05	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2HP-097	OFD-101A-2.2 D12	B	A/C	Yes	Check	Self Actuated	ON-HP-05	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-097	OFD-101A-3.2 D12	B	A/C	Yes	Check	Self Actuated	ON-HP-05	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-101	OFD-101A-1.3 J3	B	A/C	Yes	Check	Self Actuated	ON-HP-10	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-101	OFD-101A-2.3 J3	B	A/C	Yes	Check	Self Actuated	ON-HP-10	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-101	OFD-101A-3.3 J2	B	A/C	Yes	Check	Self Actuated	ON-HP-10	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-102	OFD-101A-1.3 E3	B	A/C	Yes	Check	Self Actuated	ON-HP-10	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2HP-102	OFD-101A-2.3 E3	B	A/C	Yes	Check	Self Actuated	ON-HP-10	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
3HP-102	OFD-101A-3.3 E2	B	A/C	Yes	Check	Self Actuated	ON-HP-10	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
1HP-104	OFD-101A-1.3 K6	B	C	No	Relief	Self Actuated	None						
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-104	OFD-101A-2.3 K6	B	C	No	Relief	Self Actuated	None						
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-104	OFD-101A-3.3 J5	B	C	No	Relief	Self Actuated	None						
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-105	OFD-101A-1.3 J10	B	C	Yes	Check	Self Actuated	ON-HP-11	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
2HP-105	OFD-101A-2.3 J10	B	C	Yes	Check	Self Actuated	ON-HP-11	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
3HP-105	OFD-101A-3.3 J10	B	C	Yes	Check	Self Actuated	ON-HP-11	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-108	OFD-101A-1.3 H6	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-108	OFD-101A-2.3 H6	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-108	OFD-101A-3.3 H5	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-109	OFD-101A-1.3 G10	B	C	Yes	Check	Self Actuated	ON-HP-11	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
2HP-109	OFD-101A-2.3 G10	B	C	Yes	Check	Self Actuated	ON-HP-11	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
3HP-109	OFD-101A-3.3 G10	B	C	Yes	Check	Self Actuated	ON-HP-11	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
1HP-112	OFD-101A-1.3 E6	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-112	OFD-101A-2.3 D6	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-112	OFD-101A-3.3 C5	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-113	OFD-101A-1.3 D10	B	C	Yes	Check	Self Actuated	ON-HP-11	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2HP-113	OFD-101A-2.3 D10	B	C	Yes	Check	Self Actuated	ON-HP-11	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
3HP-113	OFD-101A-3.3 D10	B	C	Yes	Check	Self Actuated	ON-HP-11	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
1HP-126	OFD-101A-1.4 J13	A	C	Yes	Stop Check	Self Actuated	ON-HP-12	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2HP-126	OFD-101A-2.4 J13	A	C	Yes	Stop Check	Self Actuated	ON-HP-12	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3HP-126	OFD-101A-3.4 J11	A	C	Yes	Stop Check	Self Actuated	ON-HP-12	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1HP-127	OFD-101A-1.4 J13	A	C	Yes	Stop Check	Self Actuated	ON-HP-12	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2HP-127	OFD-101A-2.4 J13	A	C	Yes	Stop Check	Self Actuated	ON-HP-12	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3HP-127	OFD-101A-3.4 J11	A	C	Yes	Stop Check	Self Actuated	ON-HP-12	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-144	OFD-101A-1.4 G13	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
2HP-144	OFD-101A-2.4 F12	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
3HP-144	OFD-101A-3.4 H13	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
1HP-145	OFD-101A-1.4 F13	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-145	OFD-101A-2.4 G12	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
3HP-145	OFD-101A-3.4 I13	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-146	OFD-101A-1.4 H13	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
2HP-146	OFD-101A-2.4 H12	B	A/C	Yes	Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3HP-146	OFD-101A-3.4 G13	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-147	OFD-101A-1.4 I12	B	A/C	Yes	Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
2HP-147	OFD-101A-2.4 I12	B	A/C	Yes	Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-147	OFD-101A-3.4 F13	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-152	OFD-101A-1.4 D14	A	C	Yes	Stop Check	Self Actuated	ON-HP-13	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2HP-152	OFD-101A-2.4 D13	A	C	Yes	Stop Check	Self Actuated	ON-HP-13	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3HP-152	OFD-101A-3.4 D13	A	C	Yes	Stop Check	Self Actuated	ON-HP-13	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1HP-153	OFD-101A-1.4 E13	A	C	Yes	Stop Check	Self Actuated	ON-HP-13	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2HP-153	OFD-101A-2.4 E13	A	C	Yes	Stop Check	Self Actuated	ON-HP-13	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3HP-153	OFD-101A-3.4 E13	A	C	Yes	Stop Check	Self Actuated	ON-HP-13	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1HP-155	OFD-127B-1.2 H7	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-155	OFD-127B-2.2 H7	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-155	OFD-127B-3.2 H7	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-156	OFD-127B-1.2 I7	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-156	OFD-127B-2.2 I7	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-156	OFD-127B-3.2 I7	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-188	OFD-101A-1.4 D11	A	C	Yes	Check	Self Actuated	ON-HP-14	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2HP-188	OFD-101A-2.4 D11	A	C	Yes	Check	Self Actuated	ON-HP-14	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3HP-188	OFD-101A-3.4 D10	A	C	Yes	Check	Self Actuated	ON-HP-14	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1HP-189	OFD-101A-1.2 F6	B	C	Yes	Check	Self Actuated	ON-HP-08	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
2HP-189	OFD-101A-2.2 F5	B	C	Yes	Check	Self Actuated	ON-HP-08	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
3HP-189	OFD-101A-3.2 F5	B	C	Yes	Check	Self Actuated	ON-HP-08	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
1HP-194	OFD-101A-1.4 J10	A	C	Yes	Check	Self Actuated	ON-HP-15	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2HP-194	OFD-101A-2.4 J10	A	C	Yes	Check	Self Actuated	ON-HP-15	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3HP-194	OFD-101A-3.4 J8	A	C	Yes	Check	Self Actuated	ON-HP-15	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1HP-247	OFD-101A-1.3 K10	B	B	Yes	Globe	Manual	ON-HP-06	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
2HP-247	OFD-101A-2.3 K10	B	B	Yes	Globe	Manual	ON-HP-06	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
3HP-247	OFD-101A-3.3 K9	B	B	Yes	Globe	Manual	ON-HP-06	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-248	OFD-101A-1.3 L10	B	C	Yes	Stop Check	Self Actuated	ON-HP-16	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
2HP-248	OFD-101A-2.3 L10	B	C	Yes	Stop Check	Self Actuated	ON-HP-16	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
3HP-248	OFD-101A-3.3 H9	B	C	Yes	Stop Check	Self Actuated	ON-HP-16	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
1HP-249	OFD-101A-1.3 H9	B	B	Yes	Globe	Manual	ON-HP-06	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
2HP-249	OFD-101A-2.3 H9	B	B	Yes	Globe	Manual	ON-HP-06	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
3HP-249	OFD-101A-3.3 H9	B	B	Yes	Globe	Manual	ON-HP-06	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
1HP-250	OFD-101A-1.3 I9	B	C	Yes	Stop Check	Self Actuated	ON-HP-16	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
2HP-250	OFD-101A-2.3 I9	B	C	Yes	Stop Check	Self Actuated	ON-HP-16	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
3HP-250	OFD-101A-3.3 I9	B	C	Yes	Stop Check	Self Actuated	ON-HP-16	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
1HP-251	OFD-101A-1.3 D9	B	B	Yes	Globe	Manual	ON-HP-06	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
2HP-251	OFD-101A-2.3 D9	B	B	Yes	Globe	Manual	ON-HP-06	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
3HP-251	OFD-101A-3.3 D8	B	B	Yes	Globe	Manual	ON-HP-06	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-252	OFD-101A-1.3 E9	B	C	Yes	Stop Check	Self Actuated	ON-HP-16	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
2HP-252	OFD-101A-2.3 E9	B	C	Yes	Stop Check	Self Actuated	ON-HP-16	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
3HP-252	OFD-101A-3.3 F8	B	C	Yes	Stop Check	Self Actuated	ON-HP-16	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
3HP-285	OFD-101A-3.4 F11	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
2HP-286	OFD-101A-2.4 H10	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
1HP-302	OFD-101A-1.1 F10	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-302	OFD-101A-2.1 F8	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-302	OFD-101A-3.1 F8	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-304	OFD-101A-1.1 G6	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-363	OFD-101A-1.2 F7	B	B	Yes	Globe	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2HP-363	OFD-101A-2.2 F7	B	B	Yes	Gate	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3HP-363	OFD-101A-3.2 F7	B	B	Yes	Gate	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1HP-364	OFD-101A-1.2 F7	B	C	Yes	Check	Self Actuated	ON-HP-09	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
2HP-364	OFD-101A-2.2 F7	B	C	Yes	Check	Self Actuated	ON-HP-09	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
3HP-364	OFD-101A-3.2 F8	B	C	Yes	Check	Self Actuated	ON-HP-09	SD	Sample Disassembly	Closed to Open	SD	Disassem one vlv per grp ea. RFO	None
2HP-389	OFD-101A-2.4 I10	B	A/C	Yes	Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-390	OFD-101A-1.4 F10	B	A/C	Yes	Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-390	OFD-101A-2.4 G10	B	A/C	Yes	Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
3HP-390	OFD-101A-3.4 I11	B	A/C	Yes	Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-393	OFD-101A-1.4 I10	B	A/C	Yes	Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-398-SSF	OFD-101A-1.5 F11	B	B	Yes	Gate	Rotork	ON-SSF-03	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
2HP-398-SSF	OFD-101A-2.5 F11	B	B	Yes	Gate	Rotork	ON-SSF-03	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
3HP-398-SSF	OFD-101A-3.5 F11	B	B	Yes	Gate	Rotork	ON-SSF-03	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
1HP-399-SSF	OFD-101A-1.5 G13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2HP-399-SSF	OFD-101A-2.5 H13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3HP-399-SSF	OFD-101A-3.5 H13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1HP-400-SSF	OFD-101A-1.5 H13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2HP-400-SSF	OFD-101A-2.5 G13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3HP-400-SSF	OFD-101A-3.5 G13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1HP-401-SSF	OFD-101A-1.5 F13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2HP-401-SSF	OFD-101A-2.5 F13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3HP-401-SSF	OFD-101A-3.5 F13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-402-SSF	OFD-101A-1.5 F13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
2HP-402-SSF	OFD-101A-2.5 F13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
3HP-402-SSF	OFD-101A-3.5 F13	B	C	Yes	Check	Self Actuated	ON-SSF-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	CS	Tested every cold shutdown	None
1HP-404	OFD-101A-1.5 G9	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2HP-404	OFD-101A-2.5 G9	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3HP-404	OFD-101A-3.5 G9	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1HP-405-SSF	OFD-101A-1.5 H10	B	A	No	Gate	Rotork	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-405-SSF	OFD-101A-2.5 H10	B	A	No	Gate	Rotork	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-405-SSF	OFD-101A-3.5 H10	B	A	No	Gate	Rotork	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-409	OFD-101A-1.4 D7	B	B	Yes	Globe	Limitorque	ON-HP-04	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
2HP-409	OFD-101A-2.4 E8	B	B	Yes	Gate	Limitorque	ON-HP-04	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
3HP-409	OFD-101A-3.4 E8	B	B	Yes	Globe	Limitorque	ON-HP-04	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-410	OFD-101A-1.4 H7	B	B	Yes	Globe	Limiterorque	ON-HP-04	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
2HP-410	OFD-101A-2.4 F7	B	B	Yes	Gate	Limiterorque	ON-HP-04	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
3HP-410	OFD-101A-3.4 I7	B	B	Yes	Globe	Limiterorque	ON-HP-04	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
1HP-417-SSF	OFD-101A-1.5 H9	B	A	Yes	Globe	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-417-SSF	OFD-101A-2.5 I9	B	A	Yes	Globe	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-417-SSF	OFD-101A-3.5 I9	B	A	Yes	Globe	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-426-SSF	OFD-101A-1.5 J9	B	A	Yes	Globe	Limiterorque	ON-SSF-04	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-426-SSF	OFD-101A-2.5 J9	B	A	Yes	Globe	Limiterorque	ON-SSF-04	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-426-SSF	OFD-101A-3.5 K9	B	A	Yes	Globe	Limiterorque	ON-SSF-04	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1HP-428-SSF	OFD-101A-1.5 J13	B	A	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2HP-428-SSF	OFD-101A-2.5 J13	B	A	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-428-SSF	OFD-101A-3.5 J13	B	A	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-454	OFD-101A-1.4 G10	B	A/C	Yes	Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
2HP-454	OFD-101A-2.4 G10	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3HP-454	OFD-101A-3.4 H11	B	A/C	Yes	Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1HP-457	OFD-101A-1.4 H10	B	A/C	Yes	Check	Self Actuated	ON-HP-17	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
3HP-457	OFD-101A-3.4 G11	B	A/C	Yes	Stop Check	Self Actuated	ON-HP-17	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
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Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
IA - Instrument Air System													
11A-090	OFD-137B-1.2 D4	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
21A-090	OFD-137B-1.2 D7	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
31A-090	OFD-137B-1.2 D11	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
11A-091	OFD-137B-1.2 C4	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
21A-091	OFD-137B-1.2 C7	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
31A-091	OFD-137B-1.2 C11	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
LPI - Low Pressure Injection System													
1LP-001	OFD-102A-1.1 H2	A	B	Yes	Gate	Limitorque	ON-LP-01	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
2LP-001	OFD-102A-2.1 H2	A	B	Yes	Gate	Limitorque	ON-LP-01	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
3LP-001	OFD-102A-3.1 H2	A	B	Yes	Gate	Rotork	ON-LP-01	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
1LP-002	OFD-102A-1.1 H2	A	B	Yes	Gate	Limitorque	ON-LP-01	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
2LP-002	OFD-102A-2.1 H2	A	B	Yes	Gate	Limitorque	ON-LP-01	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
3LP-002	OFD-102A-3.1 H2	A	B	Yes	Gate	Rotork	ON-LP-01	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
2LP-003	OFD-102A-2.1 H6	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LP-003	OFD-102A-3.1 H6	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1LP-009	OFD-102A-1.2 I7	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LP-009	OFD-102A-2.2 I8	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LP-009	OFD-102A-3.2 I7	B	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1LP-010	OFD-102A-1.2 G7	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LP-010	OFD-102A-2.2 H8	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LP-010	OFD-102A-3.2 G7	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1LP-012	OFD-102A-1.2 K11	B	B	Yes	Globe	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2LP-012	OFD-102A-2.2 K11	B	B	Yes	Globe	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3LP-012	OFD-102A-3.2 K11	B	B	Yes	Globe	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1LP-014	OFD-102A-1.2 E11	B	B	Yes	Globe	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2LP-014	OFD-102A-2.2 E11	B	B	Yes	Globe	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3LP-014	OFD-102A-3.2 E11	B	B	Yes	Globe	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1LP-015	OFD-102A-1.2 L11	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LP-015	OFD-102A-2.2 L11	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LP-015	OFD-102A-3.2 K12	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1LP-016	OFD-102A-1.2 D11	B	B	Yes	Gate	Limitorque	None						
								ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LP-016	OFD-102A-2.2 D11	B	B	Yes	Gate	Limitorque	None						
								ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LP-016	OFD-102A-3.2 E12	B	B	Yes	Gate	Limitorque	None						
								ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1LP-017	OFD-102A-1.2 K13	B	B	Yes	Gate	Limitorque	ON-LP-07	-					
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
2LP-017	OFD-102A-2.2 K12	B	B	Yes	Gate	Limitorque	ON-LP-07						
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
3LP-017	OFD-102A-3.2 K13	B	B	Yes	Gate	Limitorque	ON-LP-07						
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
1LP-018	OFD-102A-1.2 E13	B	B	Yes	Gate	Limitorque	ON-LP-07						
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
2LP-018	OFD-102A-2.2 E13	B	B	Yes	Gate	Limitorque	ON-LP-07						
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
3LP-018	OFD-102A-3.2 E13	B	B	Yes	Gate	Limitorque	ON-LP-07						
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
1LP-019	OFD-102A-1.1 D5	B	B	Yes	Gate	Limitorque	None						
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2LP-019	OFD-102A-2.1 D5	B	B	Yes	Gate	Limitorque	None						
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3LP-019	OFD-102A-3.1 D5	B	B	Yes	Gate	Limitorque	None						
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1LP-020	OFD-102A-1.1 D5	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2LP-020	OFD-102A-2.1 D5	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3LP-020	OFD-102A-3.1 D5	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1LP-021	OFD-102A-1.1 F7	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2LP-021	OFD-102A-2.1 E7	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3LP-021	OFD-102A-3.1 E7	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1LP-022	OFD-102A-1.1 D7	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2LP-022	OFD-102A-2.1 D7	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3LP-022	OFD-102A-3.1 D7	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1LP-028	OFD-102A-1.1 H10	B	B	Yes	Gate	Manual	ON-LP-05	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
2LP-028	OFD-102A-2.1 H10	B	B	Yes	Gate	Manual	ON-LP-05	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None
3LP-028	OFD-102A-3.1 H10	B	B	Yes	Gate	Manual	ON-LP-05	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1LP-029	OFD-102A-1.1 F6	B	A/C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LP-029	OFD-102A-2.1 F6	B	A/C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LP-029	OFD-102A-3.1 E7	B	A/C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1LP-030	OFD-102A-1.1 D6	B	A/C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LP-030	OFD-102A-2.1 D6	B	A/C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LP-030	OFD-102A-3.1 C6	B	A/C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1LP-031	OFD-102A-1.2 K5	B	C	Yes	Check	Self Actuated	ON-LP-04	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
2LP-031	OFD-102A-2.2 K5	B	C	Yes	Check	Self Actuated	ON-LP-04	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3LP-031	OFD-102A-3.2 K5	B	C	Yes	Check	Self Actuated	ON-LP-04	PS	Partial-Stroke Exercise Valve	Closed to Open	Q	Tested once quarterly	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
1LP-033	OFD-102A-1.2 E6	B	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
2LP-033	OFD-102A-2.2 E5	B	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
3LP-033	OFD-102A-3.2 E5	B	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
1LP-047	OFD-102A-1.2 E14	A	A/C	Yes	Check	Self Actuated	ON-LP-02	LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
2LP-047	OFD-102A-2.2 E14	A	A/C	Yes	Check	Self Actuated	ON-LP-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
3LP-047	OFD-102A-3.2 E14	A	A/C	Yes	Check	Self Actuated	ON-LP-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
1LP-048	OFD-102A-1.2 K14	A	A/C	Yes	Check	Self Actuated	ON-LP-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	None
2LP-048	OFD-102A-2.2 K14	A	A/C	Yes	Check	Self Actuated	ON-LP-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None
								LT	Leak-Rate Test Valve to Section XI Requirement(s)	Accident Direction	CS	Tested every cold shutdown	None
3LP-048	OFD-102A-3.2 K14	A	A/C	Yes	Check	Self Actuated	ON-LP-02	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1LP-055	OFD-101A-1.3 K3	B	C	Yes	Check	Self Actuated	ON-LP-06	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2LP-055	OFD-101A-2.3 K3	B	C	Yes	Check	Self Actuated	ON-LP-06	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3LP-055	OFD-101A-3.3 K3	B	C	Yes	Check	Self Actuated	ON-LP-06	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1LP-057	OFD-101A-1.3 C3	B	C	Yes	Check	Self Actuated	ON-LP-06	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
2LP-057	OFD-101A-2.3 C3	B	C	Yes	Check	Self Actuated	ON-LP-06	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
3LP-057	OFD-101A-3.3 D2	B	C	Yes	Check	Self Actuated	ON-LP-06	PS	Partial-Stroke Exercise Valve	Closed to Open	CS	Tested every cold shutdown	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	RF	Tested every refueling outage	None
1LP-060	OFD-102A-1.1 J9	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2LP-060	OFD-102A-2.1 J9	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3LP-060	OFD-102A-3.1 J9	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1LP-061	OFD-102A-1.1 J10	C	C	Yes	Vacuum Breaker	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2LP-061	OFD-102A-2.1 J10	C	C	Yes	Vacuum Breaker	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3LP-061	OFD-102A-3.1 J10	C	C	Yes	Vacuum Breaker	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1LP-103	OFD-102A-1.1 H2	A	B	Yes	Gate	Rotork	ON-LP-03	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
2LP-103	OFD-102A-2.1 H2	A	B	Yes	Gate	Rotork	ON-LP-03	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
3LP-103	OFD-102A-3.1 G2	A	B	Yes	Gate	Rotork	ON-LP-03	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
1LP-104	OFD-102A-1.1 F2	A	B	Yes	Gate	Rotork	ON-LP-03	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
2LP-104	OFD-102A-2.1 F2	A	B	Yes	Gate	Rotork	ON-LP-03	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
3LP-104	OFD-102A-3.1 G2	A	B	Yes	Gate	Rotork	ON-LP-03	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None
1LP-105	OFD-102A-1.1 H2	B	B	Yes	Gate	Rotork	ON-LP-08	ST	Measure Full-Stroke Time of Valve	Closed to Open	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>LPSW - Low Pressure Service Water System</i>													
1LPSW-004	OFD-124B-1.1 K6	C	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2LPSW-004	OFD-124B-2.1 K6	C	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3LPSW-004	OFD-124B-3.1 K6	C	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1LPSW-005	OFD-124B-1.1 H6	C	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2LPSW-005	OFD-124B-2.1 H6	C	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3LPSW-005	OFD-124B-3.1 H6	C	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1LPSW-006	OFD-124B-1.4 L2	B	B	Yes	Gate	Limitorque	ON-LPSW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2LPSW-006	OFD-124B-2.4 L2	B	B	Yes	Gate	Limitorque	ON-LPSW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3LPSW-006	OFD-124B-3.4 L2	B	B	Yes	Gate	Limitorque	ON-LPSW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1LPSW-015	OFD-124B-1.4 G14	B	A	Yes	Butterfly	Limitorque	ON-LPSW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2LPSW-015	OFD-124B-2.4 G14	B	A	Yes	Butterfly	Limitorque	ON-LPSW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LPSW-015	OFD-124B-3.4 G14	B	A	Yes	Butterfly	Limitorque	ON-LPSW-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1LPSW-018	OFD-124B-1.2 D3	B	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LPSW-018	OFD-124B-2.2 D3	B	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LPSW-018	OFD-124B-3.2 C3	B	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1LPSW-021	OFD-124B-1.2 D8	B	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LPSW-021	OFD-124B-2.2 D8	B	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LPSW-021	OFD-124B-3.2 C8	B	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1LPSW-024	OFD-124B-1.2 D12	B	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LPSW-024	OFD-124B-2.2 D12	B	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LPSW-024	OFD-124B-3.2 C12	B	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
LPSW-025	OFD-124A-1.1 D7	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
LPSW-028	OFD-124A-1.1 J7	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
LPSW-031	OFD-124A-1.1 G7	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
3LPSW-045	OFD-124A-3.1 E10	C	B	Yes	Butterfly	Rotork	ON-LPSW-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1LPSW-075	OFD-124B-1.1 K6	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2LPSW-075	OFD-124B-2.1 K7	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
3LPSW-075	OFD-124B-3.1 K6	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1LPSW-076	OFD-124B-1.1 H6	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2LPSW-076	OFD-124B-2.1 H7	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
3LPSW-076	OFD-124B-3.1 H6	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
3LPSW-121	OFD-124A-3.1 J7	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
3LPSW-124	OFD-124A-3.1 G7	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
LPSW-139	OFD-124A-1.1 C8	C	B	Yes	Butterfly	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1LPSW-148	OFD-124B-1.1 L4	C	C	Yes	Check	Self Actuated	ON-LPSW-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
2LPSW-148	OFD-124B-2.1 L7	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
3LPSW-148	OFD-124B-3.1 L4	C	C	Yes	Check	Self Actuated	ON-LPSW-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
1LPSW-151	OFD-124B-1.1 F3	C	C	Yes	Check	Self Actuated	ON-LPSW-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
1LPSW-251	OFD-124B-1.1 J8	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LPSW-251	OFD-124B-2.1 J8	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1LPSW-252	OFD-124B-1.1 I8	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LPSW-252	OFD-124B-2.1 I8	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LPSW-404	OFD-124B-3.1 H7	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3LPSW-405	OFD-124B-3.1 K7	C	B	Yes	Butterfly	Air	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LPSW-503	OFD-124B-2.1 G3	C	C	Yes	Check	Self Actuated	ON-LPSW-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
3LPSW-503	OFD-124B-3.1 F3	C	C	Yes	Check	Self Actuated	ON-LPSW-03	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
								SD	Sample Disassembly	Open to Closed	SD	Disassem one vlv per grp ea. RFO	None
1LPSW-565	OFD-124B-1.2 J8	B	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2LPSW-565	OFD-124B-2.2 J8	B	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3LPSW-565	OFD-124B-3.2 I8	B	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1LPSW-566	OFD-124B-1.2 I8	B	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2LPSW-566	OFD-124B-2.2 I8	B	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3LPSW-566	OFD-124B-3.2 I8	B	B	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1LPSW-931	OFD-124B-1.1 G10	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
2LPSW-931	OFD-124B-2.1 H10	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3LPSW-931	OFD-124B-3.1 K11	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>LRT - Leak Rate Test System</i>													
1LRT-017	OFD-137E-1.1 K10	B	A	No	Diaphragm	Air	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LRT-017	OFD-137E-1.1 H10	B	A	No	Diaphragm	Air	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LRT-017	OFD-137E-1.1 E9	B	A	No	Diaphragm	Air	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1LRT-024	OFD-137E-1.1 I12	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LRT-024	OFD-137E-1.1 G11	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LRT-024	OFD-137E-1.1 C11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1LRT-025	OFD-137E-1.1 I12	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LRT-025	OFD-137E-1.1 G11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LRT-025	OFD-137E-1.1 C11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LRT-036	OFD-137E-1.1 F11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LRT-036	OFD-137E-1.1 C11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2LRT-037	OFD-137E-1.1 F11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LRT-037	OFD-137E-1.1 C11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1LRT-038	OFD-137E-1.1 J12	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LRT-038	OFD-137E-1.1 H11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LRT-038	OFD-137E-1.1 D11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1LRT-039	OFD-137E-1.1 J13	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LRT-039	OFD-137E-1.1 H12	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3LRT-039	OFD-137E-1.1 D11	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>LWD - Liquid Waste Disposal System</i>													
1LWD-001	OFD-107B-1.1 C11	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LWD-001	OFD-107B-2.1 C11	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3LWD-001	OFD-107B-3.1 C11	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1LWD-002	OFD-107B-1.1 C11	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2LWD-002	OFD-107B-2.1 C12	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3LWD-002	OFD-107B-3.1 C12	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
1LWD-099	OFD-107D-1.2 E9	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3LWD-099	OFD-107D-3.2 G3	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
1LWD-103	OFD-107D-1.2 E9	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
2LWD-103	OFD-107D-2.2 G8	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
3LWD-103	OFD-107D-3.2 G3	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
MS - Main Steam System													
1MS-001	OFD-122A-1.1 J9	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-001	OFD-122A-2.1 J9	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-001	OFD-122A-3.1 J9	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-002	OFD-122A-1.1 J4	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-002	OFD-122A-2.1 J4	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-002	OFD-122A-3.1 J4	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-003	OFD-122A-1.1 J7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-003	OFD-122A-2.1 J7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-003	OFD-122A-3.1 J7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-004	OFD-122A-1.1 J5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-004	OFD-122A-2.1 J5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3MS-004	OFD-122A-3.1 J5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-005	OFD-122A-1.1 J8	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-005	OFD-122A-2.1 J8	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-005	OFD-122A-3.1 J8	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-006	OFD-122A-1.1 J5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-006	OFD-122A-2.1 J5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-006	OFD-122A-3.1 J5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-007	OFD-122A-1.1 J7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-007	OFD-122A-2.1 J7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-007	OFD-122A-3.1 J7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-008	OFD-122A-1.1 J6	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-008	OFD-122A-2.1 J6	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3MS-008	OFD-122A-3.1 J6	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-009	OFD-122A-1.1 D9	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-009	OFD-122A-2.1 D9	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-009	OFD-122A-3.1 D9	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-010	OFD-122A-1.1 D4	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-010	OFD-122A-2.1 D4	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-010	OFD-122A-3.1 D4	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-011	OFD-122A-1.1 D7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-011	OFD-122A-2.1 D7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-011	OFD-122A-3.1 D7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-012	OFD-122A-1.1 D5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-012	OFD-122A-2.1 D5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3MS-012	OFD-122A-3.1 D5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-013	OFD-122A-1.1 D8	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-013	OFD-122A-2.1 D8	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-013	OFD-122A-3.1 D8	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-014	OFD-122A-1.1 D5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-014	OFD-122A-2.1 D5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-014	OFD-122A-3.1 D5	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-015	OFD-122A-1.1 D7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-015	OFD-122A-2.1 D7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-015	OFD-122A-3.1 D7	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-016	OFD-122A-1.1 D6	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-016	OFD-122A-2.1 D6	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3MS-016	OFD-122A-3.1 D6	B	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-017	OFD-122A-1.2 I5	B	B	Yes	Gate	Limiterque	ON-MS-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-017	OFD-122A-2.2 I5	B	B	Yes	Gate	Limiterque	ON-MS-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3MS-017	OFD-122A-3.2 I5	B	B	Yes	Gate	Limiterque	ON-MS-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1MS-024	OFD-122A-1.2 H3	B	B	Yes	Gate	Limiterque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2MS-024	OFD-122A-2.2 H3	B	B	Yes	Gate	Limiterque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3MS-024	OFD-122A-3.2 H3	B	B	Yes	Gate	Limiterque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1MS-026	OFD-122A-1.2 D5	B	B	Yes	Gate	Limiterque	ON-MS-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-026	OFD-122A-2.2 D5	B	B	Yes	Gate	Limiterque	ON-MS-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3MS-026	OFD-122A-3.2 D5	B	B	Yes	Gate	Limiterque	ON-MS-02	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1MS-033	OFD-122A-1.2 E3	B	B	Yes	Gate	Limiterque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2MS-033	OFD-122A-2.2 E3	B	B	Yes	Gate	Limiterque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3MS-033	OFD-122A-3.2 E3	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1MS-035	OFD-122A-1.3 L2	B	B	Yes	Gate	Limiterorque	ON-MS-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-035	OFD-122A-2.3 L2	B	B	Yes	Gate	Limiterorque	ON-MS-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3MS-035	OFD-122A-3.3 L2	B	B	Yes	Gate	Limiterorque	ON-MS-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1MS-036	OFD-122A-1.3 F2	B	B	Yes	Gate	Limiterorque	ON-MS-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-036	OFD-122A-2.3 F2	B	B	Yes	Gate	Limiterorque	ON-MS-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3MS-036	OFD-122A-3.3 F2	B	B	Yes	Gate	Limiterorque	ON-MS-03	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1MS-076	OFD-122A-1.1 C10	B	B	Yes	Gate	Limiterorque	ON-MS-04	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-076	OFD-122A-2.1 I10	B	B	Yes	Gate	Limiterorque	ON-MS-04	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3MS-076	OFD-122A-3.1 I10	B	B	Yes	Gate	Limiterorque	ON-MS-04	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1MS-079	OFD-122A-1.1 I10	B	B	Yes	Gate	Limiterorque	ON-MS-04	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-079	OFD-122A-2.1 C10	B	B	Yes	Gate	Limiterorque	ON-MS-04	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3MS-079	OFD-122A-3.1 C10	B	B	Yes	Gate	Limiterorque	ON-MS-04	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1MS-082	OFD-122A-1.4 I2	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2MS-082	OFD-122A-2.4 I2	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3MS-082	OFD-122A-3.4 I2	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1MS-083	OFD-122A-1.4 H2	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
2MS-083	OFD-122A-2.4 H2	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
3MS-083	OFD-122A-3.4 H2	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
1MS-084	OFD-122A-1.4 G2	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2MS-084	OFD-122A-2.4 G2	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
3MS-084	OFD-122A-3.4 G2	B	B	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1MS-085	OFD-122A-1.4 G2	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
2MS-085	OFD-122A-2.4 G2	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3MS-085	OFD-122A-3.4 G2	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
1MS-087	OFD-122A-1.4 H3	C	B	Yes	Globe	Air	None	PS	Partial-Stroke Exercise Valve	Both (Stroke Test)	Q	Tested once quarterly	None
2MS-087	OFD-122A-2.4 H3	C	B	Yes	Globe	Air	None	PS	Partial-Stroke Exercise Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3MS-087	OFD-122A-3.4 H3	C	B	Yes	Ball	Air	None	PS	Partial-Stroke Exercise Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1MS-091	OFD-122A-1.4 H5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2MS-091	OFD-122A-2.4 H5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
3MS-091	OFD-122A-3.4 H5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1MS-092	OFD-122A-1.4 H6	C	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2MS-092	OFD-122A-2.4 H6	C	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3MS-092	OFD-122A-3.4 H6	C	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
1MS-093	OFD-122A-1.4 H7	C	B	Yes	Ball	Air	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2MS-093	OFD-122A-2.4 H7	C	B	Yes	Ball	Air	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3MS-093	OFD-122A-3.4 H7	C	B	Yes	Ball	Air	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1MS-094	OFD-122A-1.4 H8	C	B	Yes	Stop	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
2MS-094	OFD-122A-2.4 H8	C	B	Yes	Stop	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
3MS-094	OFD-122A-3.4 H8	C	B	Yes	Stop	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
1MS-102	OFD-122B-1.1 J3	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-102	OFD-122B-2.1 J3	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3MS-102	OFD-122B-3.1 J3	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1MS-103	OFD-122B-1.1 J4	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-103	OFD-122B-2.1 J4	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3MS-103	OFD-122B-3.1 J4	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1MS-104	OFD-122B-1.1 J4	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-104	OFD-122B-2.1 J4	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3MS-104	OFD-122B-3.1 J4	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
1MS-105	OFD-122B-1.1 J5	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
2MS-105	OFD-122B-2.1 J5	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
3MS-105	OFD-122B-3.1 J5	B	B	Yes	Stop	Hydraulic	ON-MS-01	PS	Partial-Stroke Exercise Valve	Open to Closed	Q	Tested once quarterly	None
								ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>N - Nitrogen System</i>													
1N-106	OFD-127B-1.2 E4	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1N-107	OFD-127B-1.2 F4	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1N-129	OFD-127B-1.2 G7	B	A/C	Yes	Check	Self Actuated	ON-N-01	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
2N-129	OFD-127B-2.2 G7	B	A/C	Yes	Check	Self Actuated	ON-N-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3N-129	OFD-127B-3.2 G7	B	A/C	Yes	Check	Self Actuated	ON-N-01	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1N-131	OFD-127B-1.2 J7	B	A/C	Yes	Check	Self Actuated	ON-N-01	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
2N-131	OFD-127B-2.2 J7	B	A/C	Yes	Check	Self Actuated	ON-N-01	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None
3N-131	OFD-127B-3.2 J7	B	A/C	Yes	Check	Self Actuated	ON-N-01	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1N-246	OFD-127B-1.2 E10	B	A	No	Check	Self Actuated	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2N-246	OFD-127B-2.2 E10	B	A	No	Check	Self Actuated	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3N-246	OFD-127B-3.2 E10	B	A	No	Check	Self Actuated	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2N-263	OFD-127B-2.2 E7	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3N-263	OFD-127B-3.2 E7	B	A	No	Globe	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
OG - Keowee Governor Oil System													
10G-013	KFD-105A-1.1 H11	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
20G-013	KFD-105A-2.1 H11	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
10G-016	KFD-105A-1.1 H8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
20G-016	KFD-105-2.1 H8	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
10G-019	KFD-105A-1.1 H5	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
20G-019	KFD-105A-2.1 H5	C	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
PR - Purge System													
1PR-001	OFD-116A-1.1 F3	B	A	No	Butterfly	Limitorque	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
2PR-001	OFD-116A-2.1 G3	B	A	No	Butterfly	Limitorque	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3PR-001	OFD-116A-3.1 G3	B	A	No	Butterfly	Limitorque	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
1PR-002	OFD-116A-1.1 F5	B	A	No	Butterfly	Air	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2PR-002	OFD-116A-2.1 G5	B	A	No	Butterfly	Air	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3PR-002	OFD-116A-3.1 G5	B	A	No	Butterfly	Air	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1PR-005	OFD-116A-1.1 D5	B	A	No	Butterfly	Air	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2PR-005	OFD-116A-2.1 D5	B	A	No	Butterfly	Air	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3PR-005	OFD-116A-3.1 D5	B	A	No	Butterfly	Air	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1PR-006	OFD-116A-1.1 D3	B	A	No	Butterfly	Limitorque	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
2PR-006	OFD-116A-2.1 D3	B	A	No	Butterfly	Limitorque	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3PR-006	OFD-116A-3.1 D3	B	A	No	Butterfly	Limitorque	ON-PR-01	ST	Measure Full-Stroke Time of Valve	Open to Closed	CS	Tested every cold shutdown	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
1PR-007	OFD-116C-1.1 G3	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
2PR-007	OFD-116C-2.1 G3	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3PR-007	OFD-116C-3.1 G3	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1PR-008	OFD-116C-1.1 K3	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2PR-008	OFD-116C-2.1 K3	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3PR-008	OFD-116C-3.1 K3	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1PR-009	OFD-116C-1.1 D2	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
2PR-009	OFD-116C-2.1 D2	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3PR-009	OFD-116C-3.1 D2	B	A	Yes	Diaphragm	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
1PR-010	OFD-116C-1.1 C4	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2PR-010	OFD-116C-2.1 C4	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3PR-010	OFD-116C-3.1 C4	B	A	Yes	Diaphragm	Air	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1PR-015	OFD-116B-1.1 III	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2PR-015	OFD-116B-2.1 III	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3PR-015	OFD-116B-3.1 III	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1PR-019	OFD-116B-1.1 E11	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
2PR-019	OFD-116B-2.1 E11	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
3PR-019	OFD-116B-3.1 E11	C	B	Yes	Butterfly	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
1PR-034	OFD-116B-1.1 III	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
2PR-034	OFD-116B-2.1 III	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
3PR-034	OFD-116B-3.1 III	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
1PR-035	OFD-116B-1.1 E11	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
2PR-035	OFD-116B-2.1 E11	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3PR-035	OFD-116B-3.1 E11	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
1PR-059	OFD-116C-1.1 H2	B	A	Yes	Diaphragm	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
2PR-059	OFD-116C-2.1 H3	B	A	Yes	Diaphragm	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3PR-059	OFD-116C-3.1 H3	B	A	Yes	Diaphragm	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
1PR-060	OFD-116C-1.1 D3	B	A	Yes	Diaphragm	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
2PR-060	OFD-116C-2.1 D3	B	A	Yes	Diaphragm	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
3PR-060	OFD-116C-3.1 D3	B	A	Yes	Diaphragm	Rotork	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Reverse Direction	RF	Tested every refueling outage	None
1PR-061	OFD-116C-1.1 F9	B	B	Yes	Diaphragm	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
2PR-061	OFD-116C-2.1 E9	B	B	Yes	Diaphragm	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3PR-061	OFD-116C-3.1 E9	B	B	Yes	Diaphragm	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	Q	Tested once quarterly	None
1PR-069	OFD-116C-1.1 J10	B	B	Yes	Plug	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
2PR-069	OFD-116C-2.1 J10	B	B	Yes	Ball	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
3PR-069	OFD-116C-3.1 J10	B	B	Yes	Plug	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
1PR-070	OFD-116C-1.1 D10	B	B	Yes	Plug	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
2PR-070	OFD-116C-2.1 D10	B	B	Yes	Ball	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
3PR-070	OFD-116C-3.1 D10	B	B	Yes	Plug	Manual	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Open to Closed	Q	Tested once quarterly	None
1PR-081	OFD-110A-1.3 J6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2PR-081	OFD-110A-2.3 J6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3PR-081	OFD-110A-3.3 J6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1PR-084	OFD-110A-1.3 K6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2PR-084	OFD-110A-2.3 K6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3PR-084	OFD-110A-3.3 K6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1PR-087	OFD-110A-1.3 E6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2PR-087	OFD-110A-2.3 E6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3PR-087	OFD-110A-3.3 E6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1PR-090	OFD-110A-1.3 F6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2PR-090	OFD-110A-2.3 F6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3PR-090	OFD-110A-3.3 F6	B	A	No	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Closed to Open	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1PR-115	OFD-116B-1.1 I5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2PR-115	OFD-116B-2.1 I5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
3PR-115	OFD-116B-3.1 I5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1PR-116	OFD-116B-1.1 E5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2PR-116	OFD-116B-2.1 E5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
3PR-116	OFD-116B-3.1 E5	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
RC - Reactor Coolant System													
1RC-001	OFD-100A-1.2 H10	A	B	Yes	Globe	Solenoid	ON-RC-02	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
2RC-001	OFD-100A-2.2 H10	A	B	Yes	Globe	Solenoid	ON-RC-02	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
3RC-001	OFD-100A-3.2 H10	A	B	Yes	Globe	Solenoid	ON-RC-02	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
1RC-004	OFD-100A-1.2 J9	A	B	Yes	Gate	Limitorque	ON-RC-03	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	CS	Tested every cold shutdown	None
2RC-004	OFD-100A-2.2 J9	A	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
3RC-004	OFD-100A-3.2 J9	A	B	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
1RC-005	OFD-110A-1.1 I3	A	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2RC-005	OFD-110A-2.1 I3	A	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3RC-005	OFD-110A-3.1 I3	A	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1RC-006	OFD-110A-1.1 H3	A	A	Yes	Gate	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2RC-006	OFD-110A-2.1 H3	A	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3RC-006	OFD-110A-3.1 H3	A	A	Yes	Globe	Limitorque	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1RC-007	OFD-110A-1.1 I6	B	A	Yes	Gate	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2RC-007	OFD-110A-2.1 I6	B	A	Yes	Gate	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3RC-007	OFD-110A-3.1 I6	B	A	Yes	Gate	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1RC-066	OFD-100A-1.2 J9	A	B	Yes	Relief	Solenoid	None	RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
2RC-066	OFD-100A-2.2 J9	A	B	Yes	Relief	Solenoid	None	RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
3RC-066	OFD-100A-3.2 J9	A	B	Yes	Relief	Solenoid	None	RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
								RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1RC-067	OFD-100A-1.2 J7	A	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
2RC-067	OFD-100A-2.2 J8	A	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
3RC-067	OFD-100A-3.2 J8	A	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
1RC-068	OFD-100A-1.2 J7	A	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
2RC-068	OFD-100A-2.2 J7	A	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
3RC-068	OFD-100A-3.2 J7	A	C	Yes	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	CS	Tested every cold shutdown	GNR-VLV-010
1RC-164	OFD-110A-1.4 G4	B	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2RC-164	OFD-110A-2.4 G4	B	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3RC-164	OFD-110A-3.4 G4	B	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1RC-165	OFD-110A-1.4 G4	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
2RC-165	OFD-110A-2.4 G4	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3RC-165	OFD-110A-3.4 G4	C	A	Yes	Solenoid	Solenoid	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1-Rx-CKs	NA	NA	NA	C	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	RR-VLV-024
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	RR-VLV-024
2-Rx-CKs	NA	NA	NA	C	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	RR-VLV-024
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	RR-VLV-024
3-Rx-CKs	NA	NA	NA	C	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	RR-VLV-024
								FS	Full-Stroke Exercise Valve to Safety Position(s)	Both (Stroke Test)	RF	Tested every refueling outage	RR-VLV-024

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
SF - Spent Fuel System													
1SF-060	OFD-104A-1.1 D3	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
3SF-060	OFD-104A-3.1 C5	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
1SF-061	OFD-104A-1.1 D3	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
2SF-061	OFD-104A-1.1 D12	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
3SF-061	OFD-104A-3.1 C4	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
1SF-072	OFD-104A-1.1 J3	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2SF-072	OFD-104A-1.1 J12	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3SF-072	OFD-104A-3.1 J4	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
1SF-073	OFD-104A-1.1 J3	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2SF-073	OFD-104A-1.1 J12	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3SF-073	OFD-104A-3.1 J5	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
1SF-074	OFD-104A-1.1 I3	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2SF-074	OFD-104A-1.1 I12	B	A	No	Ball	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3SF-074	OFD-104A-3.1 I5	B	A	No	Diaphragm	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2SF-081	OFD-104A-1.1 D12	B	A	No	Gate	Manual	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	ILRT	Tested every ILRT outage	None
1SF-082-SSF	OFD-101A-1.5 F2	B	A	Yes	Gate	Limiterorque	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	RF	Tested every refueling outage	None
1SF-097-SSF	OFD-104A-1.1 K3	B	A	Yes	Gate	Rotork	None	LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
								ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	RF	Tested every refueling outage	None
2SF-082-SSF	OFD-101A-2.5 F2	B	A	Yes	Gate	Limiterorque	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
3SF-082-SSF	OFD-101A-3.5 F2	B	A	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None
2SF-097-SSF	OFD-104A-1.1 K12	B	A	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
3SF-097-SSF	OFD-104A-3.1 K3	B	A	Yes	Gate	Rotork	None	ST	Measure Full-Stroke Time of Valve	Both (Stroke Test)	Q	Tested once quarterly	None
								LJ	Leak-Rate Test Valve to App J Requirement(s)	Accident Direction	RF	Tested every refueling outage	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>SSH - Second Stage Reheat System</i>													
1SSH-022	OFD-122B-1.1 16	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
2SSH-022	OFD-122B-2.1 16	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010
3SSH-022	OFD-122B-3.1 16	B	C	No	Relief	Self Actuated	None	RV	Safety and Relief Valve Test	Closed to Open	RV	Test relief valve per OM-1 schedule	GNR-VLV-010

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>TS - Keowee Turbine Sump System</i>													
1TS-002	KFD-102A-1.1 G8	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2TS-002	KFD-102A-2.1 G8	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1TS-004	KFD-102A-1.1 H8	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2TS-004	KFD-102A-2.1 H8	C	C	Yes	Check	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None

Valve	Flow Diagram	ASME Class	Valve Category	Active	Valve Type	Actuator Type	JOD	Test Type	Test Type Description	Test Direction	Test Frequency	Frequency Description	Relief Request
<i>WL - Keowee Turb. Gen. Cooling Wtr System</i>													
1WL-011	KFD-100A-1.1 J1	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
2WL-011	KFD-100A-2.1 J1	C	B	Yes	Globe	Air	None	ST	Measure Full-Stroke Time of Valve	Open to Closed	Q	Tested once quarterly	None
1WL-040	KFD-100A-1.1 B11	C	C	Yes	Vacuum Breaker	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2WL-040	KFD-100A-2.1 B11	C	C	Yes	Vacuum Breaker	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
1WL-077	KFD-100A-1.1 F10	C	C	Yes	Vacuum Breaker	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None
2WL-077	KFD-100A-2.1 F10	C	C	Yes	Vacuum Breaker	Self Actuated	None	FS	Full-Stroke Exercise Valve to Safety Position(s)	Closed to Open	Q	Tested once quarterly	None

Specific Relief Request

Item Number: RR-VLV-11

Valve(s): 2BS-5, 6

Flow Diagram / Coordinates: OFD-102A-2.1/E-8, C-10

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

ISI Class/Duke Class: B/B

Valve Category: C

Test Requirement: ¶4.3.2.2 Exercising Requirements.

Basis for Interim Relief: These valves cannot be full-stroke exercised because the present piping size configuration prevents recirculation flow from equaling design spray flow. Normal recirculation flow is approximately 1250 gpm and full flow for this system is 1500 gpm.

The present check valves can not be disassembled because this would require cutting the valve out of the line and re-welding it back in place. The current check valves are of a split-body design and are welded in the piping as opposed to being flanged and bolted; so in order to disassemble and inspect the valves, they would have to be cut out of the line. Please reference attached drawing OM-245-23 to see the valve design.

Alternate Testing: These valves will be partial-stroked tested quarterly, until they are cut out and removed from the system on the following schedule:

Unit 2 End of Cycle 15

4.3 VALVE JUSTIFICATION FOR DEFERRALS

Justification for Deferral	Applicability	Status
ON-AS-01	EFWPT AS Supply Checks	Written 02/13/95
ON-AS-02	Main Steam Supply Checks	Deleted 09/01/95
ON-BS-01	A or B RBSP Discharge Checks	Written 02/13/95
ON-BS-02	A or B RBS Containment Isol. Checks	Written 02/13/95
ON-C-01	MDEFWPs Suction from UST Block	Written 02/13/95
ON-C-02	MDEFWPs Suction from UST Check	Written 02/13/95
ON-C-03	MDEFWPs Suction from Hotwell Check	Written 02/13/95
ON-CC-01	CC Supply/Return Containment Isol.	Written 02/13/95
ON-CC-02	CC Supply Containment Isol. Check	Written 02/13/95
ON-CF-01	CFT A and B Outlet Checks	Revised 09/01/95
ON-CF-02	LPI/CF Header Checks	Revised 09/01/95
ON-CF-03	CFT A and B Inlet Checks	Written 02/13/95
ON-CS-01	Quench Tank Recirc. Containment Isol. Check	Written 02/13/95
ON-FDW-01	OTSG Startup Block and Control	Written 02/13/95
ON-FDW-02	TDEFWP Discharge Checks, EFW to OTSG A or B, and OTSG Emergency Header Checks	Written 02/13/95
ON-FDW-03	A or B OTSG Main Flow Control	Written 02/13/95
ON-FDW-04	Normal FDW to Emergency Checks	Written 02/13/95
ON-HP-01	Letdown Containment Isolation	Written 02/13/95
ON-HP-02	RCP Seal Return Containment Isol.	Written 02/13/95
ON-HP-03	HPI Loop A Emergency Injection Control	Written 02/13/95
ON-HP-04	HPI A or B Crossover Valves	Written 02/13/95
ON-HP-05	LDST Outlet Checks	Written 02/13/95
ON-HP-06	HPI Pump Min. Recirculation Block	Written 02/13/95
ON-HP-07	Letdown Containment Isolation	Written 02/13/95
ON-HP-08	RC Seal Return Line Check	Written 02/13/95
ON-HP-09	HPI Min. Recirc. to LPI Suction Check	Written 02/13/95
ON-HP-10	HPI Pump Emergency Suction Checks	Written 02/13/95
ON-HP-11	HPI Pump Discharge Checks	Written 02/13/95
ON-HP-12	A1 or A2 Loop Injection Stop Checks	Written 02/13/95
ON-HP-13	B1 or B2 Loop Injection Stop Checks	Written 02/13/95
ON-HP-14	HPI Loop B Emergency Injection Checks	Written 02/13/95
ON-HP-15	HPI Loop A Emergency/Normal Injection Checks	Written 02/13/95
ON-HP-16	HPI Pump Min. Recirculation Stop Checks	Written 02/13/95
ON-HP-17	RCP Seal Supply Containment Isol. Checks	Written 02/13/95
ON-LP-01	Decay Heat Drop Line Isolation	Written 02/13/95
ON-LP-02	A or B LPI Header Containment Isol. Checks	Written 02/13/95
ON-LP-03	Post-LOCA Boron Dilution Valves	Written 02/13/95
ON-LP-04	A LPI Pump Discharge	Written 02/13/95
ON-LP-05	BWST Outlet Isolation	Written 02/13/95
ON-LP-06	LPI Supply to HPI Isolation	Written 02/13/95
ON-LP-07	A or B LPI Header Isolation	Written 03/01/95
ON-LP-08	LPI Post Boron Dilution Valves	Written 09/01/95

Justification for Deferral	Applicability	Status
ON-LPSW-01	RCP Cooler Supply and Discharge Block	Written 02/13/95
ON-LPSW-02	U3 MTOT Cooler Supply Block	Written 02/13/95
ON-LPSW-03	Normal/Emergency Supply Checks to HPIP Motor	Written 02/13/95
ON-LPSW-04		Deleted 03/26/96
ON-MS-01	Turbine Stop	Written 02/13/95
ON-MS-02	Main Steam Turbine Bypass	Written 02/13/95
ON-MS-03	MS Supply to FDWPTs Block	Written 02/13/95
ON-MS-04	MS Supply to SSRH Block	Written 02/13/95
ON-MS-05	MS Supply to AS Checks	Deleted 09/01/95
ON-N-01	CFT A and B Inlet Containment Isol. Checks	Written 02/13/95
ON-PR-01	RB Purge Containment Isolation	Revised 03/26/96
ON-RC-01		Deleted 03/26/96
ON-RC-02	Pressurizer Spray Control	Written 02/13/95
ON-RC-03	RCS Pressure Boundary Isolation	Submitted 09/01/95
ON-SSF-01	SSF ASW Supply to A OTSG	Written 02/13/95
ON-SSF-02	SSF RC Makeup Supply to RCP Seals	Written 02/13/95
ON-SSF-03	SSF RC Makeup to RCP Seals Block	Written 02/13/95
ON-SSF-04	Letdown to Spent Fuel Vent	Written 02/13/95
ON-SSF-05	SSF AFW Supply to B OTSG Control	Written 02/13/95

Justification for Deferrals written 02/13/95 were generated as a result of adopting the guidelines presented in OM-10. A cross-reference of 'old' Relief Requests and Cold Shutdown Justifications is contained in Attachment 1 (Summary of Program Changes) of the 02/21/95 Duke letter to the NRC (Response to 11/23/94 NRC SER).

Justification for Deferral

Item Number: ON-PR-01

Valve: 1PR-1, 2PR-1, and 3PR-1
1PR-2, 2PR-2, and 3PR-2
1PR-5, 2PR-5, and 3PR-5
1PR-6, 2PR-6, and 3PR-6

Flow Diagram: OFD-116A-1.1/F-3, OFD-116A-2.1/G-3, and OFD-116A-3.1/G-3
OFD-116A-1.1/F-5, OFD-116A-2.1/G-5, and OFD-116A-3.1/G-5
OFD-116A-1.1/D-5, OFD-116A-2.1/D-5, and OFD-116A-3.1/D-5
OFD-116A-1.1/D-3, OFD-116A-2.1/D-3, and OFD-116A-3.1/D-3

Code Category: A

ISI Class/Duke Class: B/C

Function: Reactor building purge containment isolation valves.

Test Requirement: NA

Basis for Deferral: NA

Test Alternative & Frequency: These valves are passive Type A valves. They are considered passive since Technical Specification 3.6 requires them to be closed and de-energized when containment integrity is required. Although these valves are passive, they are stroked at a CS frequency per the ONS Supplemental 10CFR50 Appendix B Program.

4.4 PUMP GENERIC RELIEF REQUESTS

Relief Request	Applicability	Status
GNR-PMP-01	Pumps in operation when test is started	No change
GNR-PMP-02	Positive Displacement Pumps	Revised 9/01/95
GNR-PMP-03		Deleted 2/13/95
GNR-PMP-04		Deleted 2/13/95
GNR-PMP-05		Deleted 9/01/95
GNR-PMP-06	All Pumps (Bearing Temperature Measurement)	Revised 9/01/95

4.5 PUMP SPECIFIC RELIEF REQUESTS

Relief Request	Applicability	Status
RR-PMP-01		Deleted 2/13/95
RR-PMP-02		Deleted 3/26/96
RR-PMP-03		Deleted 2/13/95
RR-PMP-04		Deleted 2/13/95
RR-PMP-05	Keowee Turbine Sump Pumps	Submitted 3/26/96

Oconee Units 1, 2, and 3
(Keowee Hydro Station Units 1 and 2)

Specific Relief Request

Item Number: RR-PMP-05

Pump(s): K1TSPU88SD
K1TSPU88SA
K2TSPU88SD
K2TSPU88SA

Flow Diagram / Coordinates: KFD-102A-1.1/H7
KFD-102A-1.1/G7
KFD-102A-2.1/H7
KFD-102A-2.1/G7

Function: These pumps maintain water level below 34" in the sump as measured from the bottom of the sump. This is below the level at which water can enter the Turbine Guide Bearing Reservoir.

ISI Class/Duke Class: C/F

Test Requirement: IWP-3100 Inservice Test Procedure (Table IWP-3100-1) and
IWP-3300 Scope of Tests

Measure pump inlet pressure before pump startup and during test.
Observe proper lubricant level or pressure during test.
Measure pump bearing temperature at least one inservice test each year.

IWP-3210 Allowable Ranges of Inservice Test Quantities

If these ranges cannot be met, the Owner shall specify in the record of tests (IWP-6000) the reduced range limits to allow the pump to fulfill its function, and those limits shall be used in lieu of the ranges given in Table IWP-3100-2.

IWP-3500 Duration of Tests

When measurement of bearing temperature is not required, each pump shall be run at least 5 minutes under conditions as stable as the system permits. At the end of this time at least one measurement or observation of each of the quantities specified shall be made and recorded.

IWP-4110 Quality (Table IWP-4110-1) and
IWP-4600 Flow Measurement

Flow rate instrument accuracy must be within $\pm 2\%$ of full scale.

Flow rate shall be measured using a rate or quantity meter installed in the pump test circuit. The meter may be in any class that provides an overall readout repeatability within the accuracy limits of Table IWP-4110-1. Where the meter does not indicate the flow rate directly, the record shall include the method used to reduce the data.

Basis for Relief:

Per NUREG-1482 Section 5.1.2 and discussion in the ONS ASME Inservice Testing Program Document Section 5.2.9, inlet pressure, proper lubricant level or pressure, and bearing temperature are no longer required to be monitored. These data provide no useful data with regards to the intent of IST requirements.

Per discussion in Section 5.8.1 in the ONS ASME Inservice Testing Program Document, alternate acceptance criteria are used in lieu of the acceptance criteria prescribed in Table IWP-3100-2. This is consistent with IWP since the procedures clearly specify the acceptance criteria, and the procedures reference the ONS ASME Inservice Testing Program Document.

Per discussion in Section 5.8 of NUREG-1482, a licensee may follow the requirements of Paragraph 5.6 OM-6 for the duration of tests if it determines the shorter duration represents stable operation pursuant to 10 CFR 50.55a (f)(4)(iv). Paragraph 5.6 OM-6 states after pump conditions are as stable as the system permits, each pump shall be run at least 2 min. At the end of this time at least one measurement or observation of each of the quantities required shall be made and recorded. These pumps are aligned to drain the turbine wheel pit sump. The sump volume that can be removed by the sump pumps is limited to ensure adequate margin for safety when performing the test. This limits run time of the pumps to approximately 7 minutes.

No flow instrumentation exists on the suction or discharge piping for the subject pumps. Pumping rate must be measured by determining the time period required to drain a predetermined volume from the sump. Indications are placed on the wall of the sump to mark the starting and finishing levels for the test. The indications are permanent placards mounted on the wall of the sump, so they are not subject to electrical drift and the uncertainty limits imposed on such equipment.

Alternate Testing:

Alternate acceptance criteria are documented in the test procedures and in the ONS ASME Inservice Testing Program Document.

Vibration measurement will commence as soon as the pumps are started to ensure that sufficient data are collected during the IST. A stopwatch is started when the level in the sump is even with the indicator marking the test starting level. The stopwatch is stopped and pressure readings are recorded when the level in the sump is even with the indicator marking the test finishing level. Pumping rate will be determined by measuring the time required to reduce the sump level from the upper to lower placards. Acceptance criteria will be based on differential pressure developed by the pump and time required to reduce sump level from the upper to lower placards.

5.0 Table of Abbreviations

Parameter	Abbreviation	Description
Valve Type	GT GB CK RV SC BF DI EX BA SN PG ST VB	Gate valve Globe valve Check valve Relief valve Stop check Butterfly valve Diaphragm valve Explosive valve Ball valve Solenoid valve Plug valve Stop valve Vacuum breaker
Actuator Type	ML MR MO SO AO HO SA MA PA	Motor operated (Limitorque) Motor operated (Rotork) Motor operated (Other) Solenoid operated Air operated Hydraulic operated Self actuated Manual Pilot Actuated
Test(s) Performed	ST FS PS LT LJ SD FT PI RV EX	Stroke Time Full-stroke exercise to safety position(s) Partial-stroke exercise Leak-rate test to Section XI requirements Leak-rate test to Appendix J requirements Sample Disassembly Observe the fail-safe operation of the valve Verify the valve's remote position indication Safety and relief valve test Explosive valve test
Test Frequency	Q CS RF 2Y RV ILRT SD	Test performed once quarterly Test performed at cold shutdown Test performed each reactor refueling outage Test performed every two years Test relief valve at OM-1 schedule Test containment isolation valve at ILRT schedule Disassemble, inspect, and manually exercise one valve from specified group each reactor refueling outage

Draft NUREG-1482 was used as a model for deciding what abbreviations to use in the program. The IST Program Document contains a description of the Duke System Piping Class designations and applicable design criteria.