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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-33-IRV-310	East RHR Heat Exchanger HE-17E Outlet Flow Control Valve IRV-310 Limit Switch	120V/220 Control and Instrumentation	Auxiliary	609	East RHR Heat Exchanger Room	5
1-33-IRV-311	RHR Heat Exchanger Bypass Flow Control Steam Leakoff Valve IRV-311 Limit Switch	120V/220 Control and Instrumentation	Auxiliary	609	East RHR Heat Exchanger Room	5
1-HE-17E	East RHR Heat Exchanger	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5
1-ICM-311	East RHR to RC Loops #1 and #4 Cold Legs Motor Operated Containment Isolation Valve	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5
1-IMO-312	East RHR Heat Exchanger HE-17E Outlet Mini-Flow Line Motor Operated Shutoff Valve	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5
1-IMO-314	East RHR Heat Exchanger 1-HE-17E Discharge Crosstie Shutoff Valve	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-IMO-330	East RHR to Upper Containment Spray Motor Operated Shutoff Valve	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5
1-IMO-340	East RHR Heat Exchanger to Charging Pumps Suction Motor Operated Shutoff Valve	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5
1-IRV-310	East RHR Heat Exchanger HE-17E Air Operated Outlet Flow Control Steam Leakoff Valve	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5
1-IRV-311	RHR Heat Exchangers Air Operated Bypass Flow Control Valve	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5
1-RH-117	RHR Heat Exchanger Bypass Manual Isolation Valve	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5
1-SV-104E	East RHR Heat Exchanger HE-17E Outlet Safety Valve	Residual Heat Removal	Auxiliary	609	East RHR Heat Exchanger Room	5

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-33-IRV-320	West RHR Heat Exchanger HE-17w Outlet Flow Control Valve IRV-320 Limit Switch	120V/220 Control and Instrumentation	Auxiliary	609	West RHR Heat Exchanger Room	6
1-HE-17W	West RHR Heat Exchanger	Residual Heat Removal	Auxiliary	609	West RHR Heat Exchanger Room	6
1-ICM-321	West RHR to Reactor Coolant Loops #2 and #3 Cold Legs Motor Operated Containment Isolation Valve	Residual Heat Removal	Auxiliary	609	West RHR Heat Exchanger Room	6
1-IMO-322	West RHR Heat Exchanger HE-17W Outlet Mini-Flow Line Motor Operated Shutoff Valve	Residual Heat Removal	Auxiliary	609	West RHR Heat Exchanger Room	6
1-IMO-324	West RHR Heat Exchanger 1-HE-17W Discharge Crosstie Shutoff Valve	Residual Heat Removal	Auxiliary	609	West RHR Heat Exchanger Room	6
1-IMO-331	West RHR to Upper Containment Spray Motor Operated Shutoff Valve	Residual Heat Removal	Auxiliary	609	West RHR Heat Exchanger Room	6

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-IMO-350	West RHR Heat Exchanger Outlet to Safety Injection Pump Suction Motor Operated Shutoff Valve	Residual Heat Removal	Auxiliary	609	West RHR Heat Exchanger Room	6
1-IRV-320	West RHR Heat Exchanger HE-17W Air Operated Outlet Flow Control Steam Leakoff Valve	Residual Heat Removal	Auxiliary	609	West RHR Heat Exchanger Room	6
1-SV-104W	West RHR Heat Exchanger HE-17W Outlet Safety Valve	Residual Heat Removal	Auxiliary	609	West RHR Heat Exchanger Room	6
1-HV-AES-1	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Fan	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-HV-AES-1 (FLT)	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Air Filter	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-HV-AES-1-D1	Auxiliary Building Ventilation Engineered Safety Feature Exhaust HV- AES-1 Charcoal Filter Bypass Damper #1	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HV-AES-1-D2	Auxiliary Building Ventilation Engineered Safety Feature Exhaust HV-AES-1 Charcoal Filter Bypass Damper #2	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-HV-AES-1-D3	Auxiliary Building Ventilation Engineered Safety Feature Exhaust HV-AES-1 Charcoal Filter Face Damper	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-HV-AES-2	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Fan	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-HV-AES-2 (FLT)	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Air Filter	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-HV-AES-2-D1	Auxiliary Building Ventilation Engineered Safety Feature Exhaust HV-AES-2 Charcoal Filter Bypass Damper #1	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-HV-AES-2-D2	Auxiliary Building Ventilation Engineered Safety Feature Exhaust HV-AES-2 Charcoal Filter Bypass Damper #2	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HV-AES-2-D3	Auxiliary Building Ventilation Engineered Safety Feature Exhaust HV- AES-2 Charcoal Filter Face Damper	Auxiliary Building Ventilation	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-560	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Damper AES-2-D3 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-561	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Damper AES-1-D3 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-562	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Damper AES-1-D3 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-563	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Damper AES-1-D3 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-564	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Damper AES-2-D3 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-565	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Damper AES-2-D3 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-590	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Dampers AES-2-D1 and 2-D2 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-591	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Dampers AES-1-D1 and 1-D2 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-592	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Dampers AES-1-D1 and 1-D2 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-593	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Dampers AES-1-D1 and 1-D2 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-594	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Dampers AES-2-D1 and 2-D2 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-XSO-595	Auxiliary Building Ventilation Engineered Safety Feature Exhaust Dampers AES-2-D1 and 2-D2 Control Solenoid	Control Air	Auxiliary	633	Normal Blowdown Flashtank Room	8
1-33-MRV-221	Steam Generator #2 Stop Valve MRV-220 Steam Cylinder Train A Dump Valve MRV-221 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	West Main Steam Stop Enclosure	9
1-33-MRV-222	Steam Generator #2 Stop Valve MRV-220 Steam Cylinder Train B Dump Valve MRV-222 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	West Main Steam Stop Enclosure	9
1-33-MRV-223	Steam Generator #2 PORV MRV-223 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	West Main Steam Stop Enclosure	9

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-33-MRV-231	Steam Generator #3 Stop Valve MRV-230 Steam Cylinder Train A Dump Valve MRV-231 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	West Main Steam Stop Enclosure	9
1-33-MRV-232	Steam Generator #3 Stop Valve MRV-230 Steam Cylinder Train B Dump Valve MRV-232 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	West Main Steam Stop Enclosure	9
1-33-MRV-233	Steam Generator #3 PORV MRV-233 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	West Main Steam Stop Enclosure	9
1-33-SG2H	Steam Generator #2 Stop Valve MRV-220 Limit Switch	120V/220 Control and Instrumentation	Auxiliary	633	West Main Steam Stop Enclosure	9
1-33-SG3H	Steam Generator #3 Stop Valve MRV-230 Limit Switch	120V/220 Control and Instrumentation	Auxiliary	633	West Main Steam Stop Enclosure	9
1-FFI-220	Auxiliary Feedwater to Steam Generator OME-3-2 Flow Indicator Transmitter	Auxiliary Feedwater	Auxiliary	621	West Main Steam Stop Enclosure	9

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-FFI-230	Auxiliary Feedwater to Steam Generator OME-3-3 Flow Indicator Transmitter	Auxiliary Feedwater	Auxiliary	621	West Main Steam Stop Enclosure	9
1-FW-118-2	Feedwater to Steam Generator #2 Containment Isolation Check Valve	Feedwater	Auxiliary	621	West Main Steam Stop Enclosure	9
1-FW-118-3	Feedwater to Steam Generator #3 Containment Isolation Check Valve	Feedwater	Auxiliary	621	West Main Steam Stop Enclosure	9
1-MCM-221	Main Steam Lead #2 to Auxiliary Feed Pump Turbine Motor Operated Shutoff Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MCM-231	Main Steam Lead #3 to Auxiliary Feed Pump Turbine Motor Operated Shutoff Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MMO-220	Steam Stop Valve MRV-220 Steam Cylinder Dump Valve 4" Motor Operated Selector Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-MMO-230	Steam Stop Valve MRV-230 Steam Cylinder Dump Valve 4" Motor Operated Selector Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MPP-220	Steam Generator OME-3-2 Channel I Steam Pressure Transmitter	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MPP-221	Steam Generator OME-3-2 Channel II Steam Pressure Transmitter	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MPP-222	Steam Generator OME-3-2 Channel III Reactor Protection Input Steam Pressure Transmitter	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MPP-230	Steam Generator OME-3-3 Channel I Steam Pressure Transmitter	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MPP-231	Steam Generator OME-3-3 Channel II Steam Pressure Transmitter	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-MPP-232	Steam Generator OME-3-3 Channel III Reactor Protection Input Steam Pressure Transmitter	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MRV-220	Steam Generator OME-3-2 Stop Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MRV-221	Steam Generator #2 Stop Valve MRV-220 Steam Cylinder Train 'A' Dump Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MRV-222	Steam Generator #2 Stop Valve MRV-220 Steam Cylinder Train 'B' Dump Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MRV-223	Steam Generator OME-3-2 Power Operated Relief Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MRV-230	Steam Generator OME-3-3 Stop Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-MRV-231	Steam Generator #3 Stop Valve MRV-230 Steam Cylinder Train 'A' Dump Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MRV-232	Steam Generator #3 Stop Valve MRV-230 Steam Cylinder Train 'B' Dump Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-MRV-233	Steam Generator OME-3-3 Power Operated Relief Valve	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-SV-1A-2	Steam Generator OME-3-2 Safety Valve 1A	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-SV-1A-3	Steam Generator OME-3-3 Safety Valve 1A	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-SV-1B-2	Steam Generator OME-3-2 Safety Valve 1B	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)


<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SV-1B-3	Steam Generator OME-3-3 Safety Valve 1B	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-SV-2A-2	Steam Generator OME-3-2 Safety Valve 2A	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-SV-2A-3	Steam Generator OME-3-3 Safety Valve 2A	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-SV-2B-2	Steam Generator OME-3-2 Safety Valve 2B	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-SV-2B-3	Steam Generator OME-3-3 Safety Valve 2B	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-SV-3-2	Steam Generator OME-3-2 Safety Valve #3	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SV-3-3	Steam Generator OME-3-3 Safety Valve #3	Main Steam	Auxiliary	633	West Main Steam Stop Enclosure	9
1-33-MRV-211	Steam Generator #1 Stop Valve MRV-210 Steam Cylinder Train A Dump Valve MRV-211 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	East Main Steam Stop Enclosure	10
1-33-MRV-212	Steam Generator #1 Stop Valve MRV-210 Steam Cylinder Train B Dump Valve MRV-212 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	East Main Steam Stop Enclosure	10
1-33-MRV-213	Steam Generator #1 PORV MRV-213 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	East Main Steam Stop Enclosure	10
1-33-MRV-241	Steam Generator #4 Stop Valve MRV-240 Steam Cylinder Train A Dump Valve MRV-241 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	East Main Steam Stop Enclosure	10


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Equipment Required to Shutdown Reactor (Unit 1)


(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-33-MRV-242	Steam Generator #4 Stop Valve MRV-240 Steam Cylinder Train B Dump Valve MRV-242 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	East Main Steam Stop Enclosure	10
1-33-MRV-243	Steam Generator #4 PORV MRV-243 Limit Switch	250VDC Control and Instrumentation	Auxiliary	633	East Main Steam Stop Enclosure	10
1-33-SG1H	Steam Generator #1 Stop Valve MRV-210 Limit Switch	120V/220 Control and Instrumentation	Auxiliary	633	East Main Steam Stop Enclosure	10
1-33-SG4H	Steam Generator #4 Stop Valve MRV-240 Limit Switch	120V/220 Control and Instrumentation	Auxiliary	633	East Main Steam Stop Enclosure	10
1-FFC-210	Feedwater to Steam Generator #1 Channel I Flow Control Transmitter	Feedwater	Auxiliary	621	East Main Steam Stop Enclosure	10
1-FFC-211	Feedwater to Steam Generator #1 Channel II Flow Control Transmitter	Feedwater	Auxiliary	621	East Main Steam Stop Enclosure	10
1-FFI-210	Auxiliary Feedwater to Steam Generator OME-3-1 Flow Indicator Transmitter	Auxiliary Feedwater	Auxiliary	621	East Main Steam Stop Enclosure	10

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-FFI-240	Auxiliary Feedwater to Steam Generator OME-3-4 Flow Indicator Transmitter	Auxiliary Feedwater	Auxiliary	621	East Main Steam Stop Enclosure	10
1-FMO-212	West Motor Driven Auxiliary Feedwater Pump Pp-3w Supply to Steam Generator OME-3-1 Motor Operated Control Valve	Auxiliary Feedwater	Auxiliary	612	East Main Steam Stop Enclosure	10
1-FW-118-1	Feedwater to Steam Generator #1 Containment Isolation Check Valve	Feedwater	Auxiliary	621	East Main Steam Stop Enclosure	10
1-FW-118-4	Feedwater to Steam Generator #4 Containment Isolation Check Valve	Feedwater	Auxiliary	621	East Main Steam Stop Enclosure	10
1-MMO-210	Steam Stop Valve MRV-210 Steam Cylinder Dump Valve 4" Motor Operated Selector Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MMO-240	Steam Stop Valve MRV-240 Steam Cylinder Dump Valve 4" Motor Operated Selector Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MPP-210	Steam Generator Ome-3-1 Channel I Steam Pressure Transmitter	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MPP-211	Steam Generator OME-3-1 Channel II Steam Pressure Transmitter	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-MPP-212	Steam Generator OME-3-1 Channel IV Reactor Protection Input Steam Pressure Transmitter	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MPP-240	Steam Generator OME-3-4 Channel I Steam Pressure Transmitter	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MPP-241	Steam Generator OME-3-4 Channel II Steam Pressure Transmitter	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MPP-242	Steam Generator OME-3-4 Channel IV Reactor Protection Input Steam Pressure Transmitter	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MRV-210	Steam Generator OME-3-1 Stop Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MRV-211	Steam Generator #1 Stop Valve MRV-210 Steam Cylinder Train 'A' Dump Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MRV-212	Steam Generator #1 Stop Valve MRV-210 Steam Cylinder Train 'B' Dump Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-MRV-213	Steam Generator OME-3-1 Power Operated Relief Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MRV-240	Steam Generator OME-3-4 Stop Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MRV-241	Steam Generator #4 Stop Valve MRV-240 Steam Cylinder Train 'A' Dump Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MRV-242	Steam Generator #4 Stop Valve MRV-240 Steam Cylinder Train 'B' Dump Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-MRV-243	Steam Generator OME-3-4 Power Operated Relief Valve	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-SV-1A-1	Steam Generator OME-3-1 Safety Valve 1A	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-SV-1A-4	Steam Generator OME-3-4 Safety Valve 1A	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-SV-1B-1	Steam Generator OME-3-1 Safety Valve 1B	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SV-1B-4	Steam Generator OME-3-4 Safety Valve 1B	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-SV-2A-1	Steam Generator OME-3-1 Safety Valve 2A	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-SV-2A-4	Steam Generator OME-3-4 Safety Valve 2A	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-SV-2B-1	Steam Generator OME-3-1 Safety Valve 2B	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-SV-2B-4	Steam Generator OME-3-4 Safety Valve 2B	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-SV-3-1	Steam Generator OME-3-1 Safety Valve #3	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-SV-3-4	Steam Generator OME-3-4 Safety Valve #3	Main Steam	Auxiliary	633	East Main Steam Stop Enclosure	10
1-XSO-221	Steam Generator #2 Stop Valve MRV-220 Steam Cylinder Train 'A' Dump Valve MRV-221 Control Solenoid	Control Air	Auxiliary	612	West Non- Essential Service Water Valve Gallery	11

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-222	Steam Generator #2 Stop Valve MRV-220 Steam Cylinder Train 'B' Dump Valve MRV-222 Control Solenoid	Control Air	Auxiliary	633	West Non- Essential Service Water Valve Gallery	11
1-XSO-231	Steam Generator #3 Stop Valve MRV-230 Steam Cylinder Train 'A' Dump Valve MRV-231 Control Solenoid	Control Air	Auxiliary	612	West Non- Essential Service Water Valve Gallery	11
1-XSO-232	Steam Generator #3 Stop Valve MRV-230 Steam Cylinder Train 'B' Dump Valve MRV-232 Control Solenoid	Control Air	Auxiliary	612	West Non- Essential Service Water Valve Gallery	11
1-EPT-223	Steam Generator OME 3-2 PORV MRV-223 Control Air Electro- Pneumatic Transducer	Control Air	Auxiliary	612	612 Airlock	12
1-EPT-233	Steam Generator OME 3-3 PORV MRV-233 Control Air Electro- Pneumatic Transducer	Control Air	Auxiliary	612	612 Airlock	12

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-EPT-213	Steam Generator OME 3-1 PORV MRV-213 Control Air Electro-Pneumatic Transducer	Control Air	Auxiliary	612	East Feedwater Regulating Valve Area	13
1-EPT-243	Steam Generator OME 3-4 PORV MRV-243 Control Air Electro-Pneumatic Transducer	Control Air	Auxiliary	612	East Feedwater Regulating Valve Area	13
1-FFC-240	Feedwater to Steam Generator #4 Channel I Flow Control Transmitter	Feedwater	Auxiliary	612	East Feedwater Regulating Valve Area	13
1-FFC-241	Feedwater to Steam Generator #4 Channel II Flow Control Transmitter	Feedwater	Auxiliary	612	East Feedwater Regulating Valve Area	13
1-FRV-210	Steam Generator OME-3-1 Feedwater Regulating Valve	Feedwater	Auxiliary	612	East Feedwater Regulating Valve Area	13
1-FRV-240	Steam Generator OME-3-4 Feedwater Regulating Valve	Feedwater	Auxiliary	612	East Feedwater Regulating Valve Area	13

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-291-1(2)	Steam Generator #1 Feedwater Regulating Valve FRV-210 Train 'A' Control Solenoids	Control Air	Auxiliary	612	East Feedwater Regulating Valve Area	13
1-XSO-292-1(2)	Steam Generator #1 Feedwater Regulating Valve FRV-210 Train 'B' Control Solenoids	Control Air	Auxiliary	612	East Feedwater Regulating Valve Area	13
1-XSO-297-1(2)	Steam Generator #4 Feedwater Regulating Valve FRV-240 Train 'A' Control Solenoids	Control Air	Auxiliary	612	East Feedwater Regulating Valve Area	13
1-XSO-298-1(2)	Steam Generator #4 Feedwater Regulating Valve FRV-240 Train 'B' Control Solenoids	Control Air	Auxiliary	612	East Feedwater Regulating Valve Area	13
1-ICM-250	Boron Injection Tank Train 'A' Outlet Motor Operated Containment Isolation Valve	Boron Injection	Auxiliary	612	Bit Outlet Valve Room	15

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-ICM-251	Boron Injection Tank Train 'B' Outlet Motor Operated Containment Isolation Valve	Boron Injection	Auxiliary	612	Bit Outlet Valve Room	15
1-IMO-255	Boron Injection Tank Train 'A' Inlet Motor Operated Shutoff Valve	Boron Injection	Auxiliary	612	Bit Room	16
1-IMO-256	Boron Injection Tank Train 'B' Inlet Motor Operated Shutoff Valve	Boron Injection	Auxiliary	612	Bit Room	16
1-SI-210	Boron Injection to Charging Pump Crosstie Check Valve	Boron Injection	Auxiliary	612	Bit Room	16
1-SV-97	Boron Injection Tank TK-11 Outlet Safety Valve	Boron Injection	Auxiliary	612	Bit Room	16
1-TK-11	Boron Injection Tank	Boron Injection	Auxiliary	612	Bit Room	16
1-HE-11	Reactor Coolant Pump Seal Water Heat Exchanger	CVCS (Charging)	Auxiliary	609	Seal Water Heat Exchanger Room	18

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SV-54	Reactor Coolant Pump Seal Water Heat Exchanger HE-11 Safety Valve	CVCS (Letdown)	Auxiliary	609	Seal Water Heat Exchanger Room	18
1-QMO-451	Reactor Coolant Letdown Volume Control Tank TK-10 to CVCS Charging Pumps Train 'A' Shutoff Motor Operated Valve	CVCS (Letdown)	Auxiliary	609	Volume Control Tank East Hallway	19
1-QMO-452	Reactor Coolant Letdown Volume Control Tank TK-10 to CVCS Charging Pumps Train 'B' Shutoff Motor Operated Valve	CVCS (Letdown)	Auxiliary	609	Volume Control Tank East Hallway	19
1-TK-32	Condensate Storage Tank	Auxiliary Feedwater (CST Supply)	Grounds	609	Condensate Storage Tank Area	20
1-TK-33	Refueling Water Storage Tank	RWST Supply	Grounds	609	RWST Area	21
1-VTS-340	AB Emergency Diesel Generator Room Ventilation Supply Fan HV-DGS-1 Outside Air Thermostat	Diesel Room Ventilation	Grounds	609	RWST Area	21
1-NRI-21-AMP	Nuclear Instrumentation Wide Range Radiation Amplifier Cabinet	Nuclear Instrumentation	Auxiliary	596	Reactor Cable Tunnel, Quadrant #1	25

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NRI-23-AMP	Nuclear Instrumentation Source Range Radiation Detector NRI-23 Amplifier Cabinet	Nuclear Instrumentation	Auxiliary	596	Reactor Cable Tunnel, Quadrant #1	25
1-NRI-23-ISOL	Nuclear Instrumentation Source Range Signal Isolator Cabinet	Nuclear Instrumentation	Auxiliary	596	Reactor Cable Tunnel, Quadrant #1	25
1-HV-DGS-DAB	AB Emergency Diesel Generator Room Ventilation Supply Fan HV-DGS-1 Outside Air Shutoff Damper	Diesel Room Ventilation	Auxiliary	596	Reactor Cable Tunnel, Quadrant #3	26
1-VTS-345	CD Emergency Diesel Generator Room Ventilation Supply Fan HV-DGS-2 Outside Air Thermostat	Diesel Room Ventilation	Auxiliary	596	Reactor Cable Tunnel, Quadrant #3	26
1-33-QCR-300	Reactor Coolant Letdown Train B Containment Isolation Valve QCR-300 Limit Switch	250VDC Control and Instrumentation	Auxiliary	591	Vestibule	28
1-ICM-305	Recirculation Sump to East RHR/CTS Pumps Suction Motor Operated Containment Isolation Valve	Residual Heat Removal	Auxiliary	591	Vestibule	28

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-ICM-306	Recirculation Sump to West RHR/CTS Pumps Suction Motor Operated Containment Isolation Valve	Residual Heat Removal	Auxiliary	591	Vestibule	28
1-IFI-335	Residual Heat Removal to Reactor Coolant Loops #2 and #3 Cold Legs Flow Indicator Transmitter	Residual Heat Removal	Auxiliary	591	Vestibule	28
1-IMO-390	Refueling Water Storage Tank TK-33 to Residual Heat Removal Pumps Suction Motor Operated Shutoff Valve	Residual Heat Removal	Auxiliary	591	Vestibule	28
1-ITR-335	Residual Heat Removal to Reactor Coolant Loops #2 & #3 Cold Legs Temperature Recorder Thermal Sensor	Residual Heat Removal	Auxiliary	591	Vestibule	28
1-QCM-350	Reactor Coolant Pump Seal Water Return Train 'B' Containment Isolation Motor Operated Valve	CVCS (Charging)	Auxiliary	591	Vestibule	28
1-QCR-300	Reactor Coolant Letdown Train 'B' Containment Isolation Valve	CVCS (Letdown)	Auxiliary	591	Vestibule	28

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-300	Reactor Coolant Letdown Train 'B' Containment Isolation Valve QCR-300 Control Solenoid	Control Air	Auxiliary	591	Vestibule	28
1-33-DCR-310	Steam Generator #1 Blowdown Containment Isolation Valve DCR-310 Limit Switch	250VDC Control and Instrumentation	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-33-DCR-320	Steam Generator #2 Blowdown Containment Isolation Valve DCR-320 Limit Switch	250VDC Control and Instrumentation	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-33-DCR-330	Steam Generator #3 Blowdown Containment Isolation Valve DCR-330 Limit Switch	250VDC Control and Instrumentation	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-33-DCR-340	Steam Generator #4 Blowdown Containment Isolation Valve DCR-340 Limit Switch	250VDC Control and Instrumentation	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DCR-310	Steam Generator OME-3-1 Blowdown Containment Isolation Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-DCR-320	Steam Generator OME-3-2 Blowdown Containment Isolation Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DCR-330	Steam Generator OME-3-3 Blowdown Containment Isolation Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DCR-340	Steam Generator OME-3-4 Blowdown Containment Isolation Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DRV-311	Steam Generator OME-3-1 Blowdown Flow Control Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DRV-312	Steam Generator OME-3-1 Blowdown Flow Control Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DRV-321	Steam Generator OME-3-2 Blowdown Flow Control Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-DRV-322	Steam Generator OME-3-2 Blowdown Flow Control Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DRV-331	Steam Generator OME-3-3 Blowdown Flow Control Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DRV-332	Steam Generator OME-3-3 Blowdown Flow Control Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DRV-341	Steam Generator OME-3-4 Blowdown Flow Control Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-DRV-342	Steam Generator OME-3-4 Blowdown Flow Control Valve	Main Steam (Blowdown)	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-FMO-221	Turbine Driven Auxiliary Feed Pump PP-4 Discharge to Steam Generator OME- 3-2 Motor Operated Control Valve	Auxiliary Feedwater	Auxiliary	591	Startup Blowdown Flashtank Room	29

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-FMO-222	East Motor Driven Auxiliary Feedwater Pump PP-3E Supply to Steam Generator OME-3-2 Motor Operated Control Valve	Auxiliary Feedwater	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-FMO-231	Turbine Driven Auxiliary Feed Pump PP-4 Supply to Steam Generator OME-3-3 Motor Operated Control Valve	Auxiliary Feedwater	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-FMO-232	East Motor Driven Auxiliary Feedwater Pump PP-3E Supply to Steam Generator OME-3-3 Motor Operated Control Valve	Auxiliary Feedwater	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-XSO-311	Steam Generator OME-3-1 Blowdown Containment Isolation Valve DCR-310 Control Solenoid	Control Air	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-XSO-321	Steam Generator OME-3-2 Blowdown Containment Isolation Valve DCR-320 Control Solenoid	Control Air	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-XSO-331	Steam Generator OME-3-3 Blowdown Containment Isolation Valve DCR-330 Control Solenoid	Control Air	Auxiliary	591	Startup Blowdown Flashtank Room	29

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-341	Steam Generator OME-3-4 Blowdown Containment Isolation Valve DCR-340 Control Solenoid	Control Air	Auxiliary	591	Startup Blowdown Flashtank Room	29
1-SSV-A1	250VDC Train 'A' Nuclear Sampling Feeder Panel #1	250VDC	Auxiliary	587	Nuclear Sampling Room	36
1-IMO-910	Refueling Water Storage Tank to CVCS Charging Pumps Suction Header Train 'A' Motor Operated Shutoff Valve	CVCS (Charging)	Auxiliary	587	Reciprocating Charging Pump Room	39
1-QMO-200	CVCS Charging to Regenerative Heat Exchanger Train 'A' Motor Operated Shutoff Valve	CVCS (Charging)	Auxiliary	587	Reciprocating Charging Pump Room	39
1-QMO-201	CVCS Charging to Regenerative Heat Exchanger Train 'B' Motor Operated Shutoff Valve	CVCS (Charging)	Auxiliary	587	Reciprocating Charging Pump Room	39
1-QRV-251	CVCS Centrifugal Charging Pumps Air Operated Discharge Flow Control Valve	CVCS (Charging)	Auxiliary	587	Reciprocating Charging Pump Room	39

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SV-56	CVCS Charging Pumps Suction Header Safety Valve	CVCS (Charging)	Auxiliary	587	Reciprocating Charging Pump Room	39
1-HE-37E	East Centrifugal Charging Pump Gear Oil Cooler	Component Cooling Water	Auxiliary	587	East Centrifugal Charging Pump Room	40
1-HE-38E	East Centrifugal Charging Pump Bearing Oil Cooler	Component Cooling Water	Auxiliary	587	East Centrifugal Charging Pump Room	40
1-IMO-911	Refueling Water Storage Tank to CVCS Charging Pumps Suction Header Train 'B' Motor Operated Shutoff Valve	CVCS (Charging)	Auxiliary	587	East Centrifugal Charging Pump Room	40
1-PP-50E	East Centrifugal Charging Pump	CVCS (Charging)	Auxiliary	587	East Centrifugal Charging Pump Room	40
1-QMO-225	East Centrifugal Charging Pump Mini-Flow to RCP Seal Water Heat Exchanger HE-11 Motor Operated Shutoff Valve	CVCS (Charging)	Auxiliary	587	East Centrifugal Charging Pump Room	40

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HE-37W	West Centrifugal Charging Pump Gear Oil Cooler	Component Cooling Water	Auxiliary	587	West Centrifugal Charging Pump Room	41
1-HE-38W	West Centrifugal Charging Pump Bearing Oil Cooler	Component Cooling Water	Auxiliary	587	West Centrifugal Charging Pump Room	41
1-IMO-360	Safety Injection Pumps to CVCS Charging Pumps Suction Header Crosstie Motor Operated Shutoff Valve	CVCS (Charging)	Auxiliary	587	West Centrifugal Charging Pump Room	41
1-PP-50W	West Centrifugal Charging Pump	CVCS (Charging)	Auxiliary	587	West Centrifugal Charging Pump Room	41
1-QMO-226	West Centrifugal Charging Pump Mini-Flow to RCP Seal Water Heat Exchanger HE-11 Motor Operated Shutoff Valve	CVCS (Charging)	Auxiliary	587	West Centrifugal Charging Pump Room	41
1-HE-34NE	North Safety Injection Pump Mech Seal Heat Exchanger	Component Cooling Water	Auxiliary	587	North Safety Injection Pump Room	42

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HE-34NW	North Safety Injection Pump Mech Seal Heat Exchanger	Component Cooling Water	Auxiliary	587	North Safety Injection Pump Room	42
1-HE-35N	North Safety Injection Pump Oil Cooler	Component Cooling Water	Auxiliary	587	North Safety Injection Pump Room	42
1-ICM-260	North Safety Injection Pump PP-26N Discharge Motor Operated Containment Isolation Valve	Safety Injection	Auxiliary	587	North Safety Injection Pump Room	42
1-IFI-260	Safety Injection Pump Discharge Flow Indicator	Safety Injection	Auxiliary	587	North Safety Injection Pump Room	42
1-IMO-262	Safety Injection Pumps Recirc to Refueling Water Storage Tank TK-33 Train 'A' Motor Operated Shutoff Valve	Safety Injection	Auxiliary	587	North Safety Injection Pump Room	42
1-IMO-263	Safety Injection Pumps Recirc to Refueling Water Storage Tank TK-33 Train 'B' Motor Operated Shutoff Valve	Safety Injection	Auxiliary	587	North Safety Injection Pump Room	42

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-IMO-270	Safety Injection Pumps Discharge Crosstie Train 'A' Motor Operated Shutoff Valve	Safety Injection	Auxiliary	587	North Safety Injection Pump Room	42
1-IMO-361	Safety Injection Pumps Suction to and From Charging Pumps Suction Train 'A' Motor Operated Shutoff Valve	Safety Injection	Auxiliary	587	North Safety Injection Pump Room	42
1-IMO-362	Safety Injection Pumps Suction to and From Charging Pumps Suction Train 'B' Motor Operated Shutoff Valve	Safety Injection	Auxiliary	587	North Safety Injection Pump Room	42
1-PP-26N	North Safety Injection Pump	Safety Injection	Auxiliary	587	North Safety Injection Pump Room	42
1-SV-98N	North Safety Injection Pump PP-26N Discharge Header Safety Valve	Safety Injection	Auxiliary	587	North Safety Injection Pump Room	42
1-HE-34SE	South Safety Injection Pump Mech Seal Heat Exchanger	Component Cooling Water	Auxiliary	587	South Safety Injection Pump Room	43

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HE-34SW	South Safety Injection Pump Mech Seal Heat Exchanger	Component Cooling Water	Auxiliary	587	South Safety Injection Pump Room	43
1-HE-35S	South Safety Injection Pump Oil Cooler	Component Cooling Water	Auxiliary	587	South Safety Injection Pump Room	43
1-ICM-265	South Safety Injection Pump PP-26S Discharge Motor Operated Containment Isolation Valve	Safety Injection	Auxiliary	587	South Safety Injection Pump Room	43
1-IFI-266	Safety Injection Pump Discharge Flow Indicator	Safety Injection	Auxiliary	587	South Safety Injection Pump Room	43
1-IMO-261	Refueling Water Storage Tank TK-33 Supply to Safety Injection Pumps Motor Operated Shutoff Valve	Safety Injection	Auxiliary	587	South Safety Injection Pump Room	43
1-IMO-275	Safety Injection Pumps Discharge Crosstie Train 'B' Motor Operated Shutoff Valve	Safety Injection	Auxiliary	587	South Safety Injection Pump Room	43

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)


<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-PP-26S	South Safety Injection Pump	Safety Injection	Auxiliary	587	South Safety Injection Pump Room	43
1-SV-96	Safety Injection Pumps Suction Header Safety Valve	Safety Injection	Auxiliary	587	South Safety Injection Pump Room	43
1-SV-98S	South Safety Injection Pump PP-26S Discharge Header Safety Valve	Safety Injection	Auxiliary	587	South Safety Injection Pump Room	43
1-FFC-220	Feedwater to Steam Generator #2 Channel I Flow Control Transmitter	Feedwater	Auxiliary	587	West Feedwater Regulating Valve Area	48
1-FFC-221	Feedwater to Steam Generator #2 Channel II Flow Control Transmitter	Feedwater	Auxiliary	587	West Feedwater Regulating Valve Area	48
1-FFC-230	Feedwater to Steam Generator #3 Channel I Flow Control Transmitter	Feedwater	Auxiliary	587	West Feedwater Regulating Valve Area	48

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Equipment Required to Shutdown Reactor (Unit 1) (for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-FFC-231	Feedwater to Steam Generator #3 Channel II Flow Control Transmitter	Feedwater	Auxiliary	587	West Feedwater Regulating Valve Area	48
1-FRV-220	Steam Generator OME-3-2 Feedwater Regulating Valve	Feedwater	Auxiliary	587	West Feedwater Regulating Valve Area	48
1-FRV-230	Steam Generator OME-3-3 Feedwater Regulating Valve	Feedwater	Auxiliary	612	West Feedwater Regulating Valve Area	48
1-XSO-293-1(2)	Steam Generator #2 Feedwater Regulating Valve FRV-220 Train 'A' Control Solenoids	Control Air	Auxiliary	587	West Feedwater Regulating Valve Area	48
1-XSO-294-1(2)	Steam Generator #2 Feedwater Regulating Valve FRV-220 Train 'B' Control Solenoids	Control Air	Auxiliary	587	West Feedwater Regulating Valve Area	48
1-XSO-295-1(2)	Steam Generator #3 Feedwater Regulating Valve FRV-230 Train 'A' Control Solenoids	Control Air	Auxiliary	587	West Feedwater Regulating Valve Area	48

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-296-1(2)	Steam Generator #3 Feedwater Regulating Valve FRV-230 Train 'B' Control Solenoids	Control Air	Auxiliary	587	West Feedwater Regulating Valve Area	48
1-FFS-258	Turbine Driven Auxiliary Feedwater Pump PP-4 Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-FFS-259	Turbine Driven Auxiliary Feedwater Pump PP-4 Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-FFS-260	Turbine Driven Auxiliary Feedwater Pump PP-4 Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-FFS-261	Turbine Driven Auxiliary Feedwater Pump PP-4 Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-FRV-256	Turbine Driven Auxiliary Feedwater Pump PP-4 Air Operated Test Valve	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-FRV-258	Turbine Driven Auxiliary Feedwater Pump PP-4 Air Operated Emergency Leakoff Valve	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-HV-AFP-T1AC	Turbine Driven Auxiliary Feedwater Pump Room Cooler	Turbine Building Ventilation	Turbine	591	TDAFP Room	49

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HV-AFP-T2AC	Turbine Driven Auxiliary Feedwater Pump Room Cooler	Turbine Building Ventilation	Turbine	591	TDAFP Room	49
1-OME-33	Turbine Driven Auxiliary Feedwater Pump PP-4 Duplex Strainer	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-OME-39	AFW Pump Turbine	Main Steam	Turbine	591	TDAFP Room	49
1-PP-4	Turbine Driven Auxiliary Feedwater Pump	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-QT-506	TDAFP Trip Throttle Valve	Main Steam	Turbine	591	TDAFP Room	49
1-QT-507	TDAFP Governor Valve	Main Steam	Turbine	591	TDAFP Room	49
1-SV-140-1	Turbine Driven Auxiliary Feedwater Pump Governor Oil Cooler Cooling Water Inlet Safety Valve	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-SV-140-2	Turbine Driven Auxiliary Feedwater Pump Oil Cooler Cooling Water Inlet Safety Valve	Auxiliary Feedwater	Turbine	591	TDAFP Room	49

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-VTS-203	Turbine Driven Auxiliary Feedwater Pump Room Cooler 1-HV-AFP-T1AC Temperature Switch	Turbine Building Ventilation	Turbine	591	TDAFP Room	49
1-VTS-204	Turbine Driven Auxiliary Feedwater Pump Room Cooler 1-HV-AFP-T2AC Temperature Switch	Turbine Building Ventilation	Turbine	591	TDAFP Room	49
1-XSO-256	Turbine Driven Auxiliary Feedwater Pump Test Valve FRV-256 Control Solenoid	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-XSO-258	Turbine Driven Auxiliary Feedwater Pump Emergency Leakoff Valve FRV-258 Control Solenoid	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-FFS-257	East Motor Driven Auxiliary Feedwater Pump PP-3E Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	East Motor Driven Feed Pump Room	50
1-FRV-255	East Motor Driven Auxiliary Feedwater Pump PP-3E Air Operated Test Valve	Auxiliary Feedwater	Turbine	591	East MDAFP Room	50
1-FRV-257	East Motor Driven Auxiliary Feedwater Pump PP-3E Air Operated Emergency Leakoff Valve	Auxiliary Feedwater	Turbine	591	East MDAFP Room	50

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HV-AFP-EAC	East Motor Driven Auxiliary Feedwater Pump Room Cooler	Turbine Building Ventilation	Turbine	591	East MDAFP Room	50
1-OME-32E	East Motor Driven Auxiliary Feedwater Pump PP-3E Duplex Strainer	Auxiliary Feedwater	Turbine	591	East MDAFP Room	50
1-PP-3E	East Motor Driven Auxiliary Feedwater Pump	Auxiliary Feedwater	Turbine	591	East MDAFP Room	50
1-SV-169E	East Motor Driven Auxiliary Feedwater Pump PP-3E Suction Safety Valve	Auxiliary Feedwater	Turbine	591	East MDAFP Room	50
1-VTS-201	East Motor Driven Auxiliary Feedwater Pump Room Cooler 1-HV-AFP-EAC Temperature Switch	Turbine Building Ventilation	Turbine	591	East MDAFP Room	50
1-XSO-255	Turbine Driven Auxiliary Feedwater Pump Test Valve FRV-255 Control Solenoid	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-XSO-257	Turbine Driven Auxiliary Feedwater Pump Emergency Leakoff Valve FRV-257 Control Solenoid	Auxiliary Feedwater	Turbine	591	TDAFP Room	49
1-FFS-244	West Motor Driven Auxiliary Feedwater Pump PP-3W Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-FFS-245	West Motor Driven Auxiliary Feedwater Pump PP-3W Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51
1-FFS-247	West Motor Driven Auxiliary Feedwater Pump PP-3W Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51
1-FRV-245	West Motor Driven Auxiliary Feedwater Pump PP-3W Air Operated Test Valve	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51
1-FRV-247	West Motor Driven Auxiliary Feedwater Pump PP-3W Air Operated Emergency Leakoff Valve	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51
1-HV-AFP-WAC	West Motor Driven Auxiliary Feedwater Pump Room Cooler	Turbine Building Ventilation	Turbine	591	West MDAFP Room	51
1-OME-32W	West Motor Driven Auxiliary Feedwater Pump PP-3W Duplex Strainer	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51
1-PP-3W	West Motor Driven Auxiliary Feedwater Pump	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51
1-SV-169W	West Motor Driven Auxiliary Feed Pump PP-3W Suction Safety Valve	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-VTS-206	West Motor Driven Auxiliary Feedwater Pump Room Cooler 1-HV-AFP-WAC Temperature Switch	Turbine Building Ventilation	Turbine	591	West MDAFP Room	51
1-XSO-345	West Motor Driven Auxiliary Feedwater Pump Test Valve FRV-245 Control Solenoid	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51
1-XSO-347	West Motor Driven Auxiliary Feedwater Pump Emergency Leakoff Valve FRV-247 Control Solenoid	Auxiliary Feedwater	Turbine	591	West MDAFP Room	51
1-HE-32E	East Residual Heat Removal Pump PP-35E Mechanical Seal Heat Exchanger	Residual Heat Removal	Auxiliary	573	East RHR Pump Room	54
1-IMO-310	East Residual Heat Removal Pump PP-35E Suction Motor Operated Shutoff Valve	Residual Heat Removal	Auxiliary	573	East RHR Pump Room	54
1-PP-35E	East Residual Heat Removal Pump	Residual Heat Removal	Auxiliary	573	East RHR Pump Room	54
1-HE-32W	West Residual Heat Removal Pump PP-35W Mechanical Seal Heat Exchanger	Component Cooling Water	Auxiliary	573	West RHR Pump Room	55

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-IMO-320	West Residual Heat Removal Pump PP-35W Suction Motor Operated Shutoff Valve	Residual Heat Removal	Auxiliary	573	West RHR Pump Room	55
1-PP-35W	West Residual Heat Removal Pump	Residual Heat Removal	Auxiliary	573	West RHR Pump Room	55
1-IFI-53	Boron Injection to Reactor Coolant Loop #3 Flow Indicator Transmitter	Boron Injection	Containment	598	Annulus - Quadrant #3	56
1-IMO-53	Boron Injection to Reactor Coolant Loop #3 Motor Operated Shutoff Valve	Boron Injection	Containment	598	Annulus - Quadrant #3	56

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-MFC-130	Steam Generator OME-3-3 Channel II Steam Flow Control Transmitter	Main Steam	Containment	598	Annulus - Quadrant #3	56
1-MFC-131	Steam Generator OME-3-3 Channel I Steam Flow Control Transmitter	Main Steam	Containment	598	Annulus - Quadrant #3	56
1-SV-50	RC Pumps Seal #1 and Startup Seal System Bypass to Seal Water Return Filters Safety Valve	Reactor Coolant (Pump Seal Water Inj/Leakoff)	Containment	598	Annulus - Quadrant #3	56
1-XSO-27	Reactor Coolant Pump #3 Seal #1 Leakoff to RCP Seal Water Return Filter Air Operated Shutoff Valve QRV- 30 Control Solenoid	Control Air	Containment	598	Annulus - Quadrant #3	56
1-IFI-54	Boron Injection to Reactor Coolant Loop #4 Flow Indicator Transmitter	Boron Injection	Containment	598	Annulus - Quadrant #4	57
1-IMO-54	Boron Injection to Reactor Coolant Loop #4 Motor Operated Shutoff Valve	Boron Injection	Containment	598	Annulus - Quadrant #4	57
1-MFC-140	Steam Generator OME-3-4 Channel I Steam Flow Control Transmitter	Main Steam	Containment	598	Annulus - Quadrant #4	57

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-33-QCR-301	Reactor Coolant Letdown Train A Containment Isolation Valve QCR-301 Limit Switch	250vdc Control and Instrumentation	Containment	598	Annulus - Quadrant #1	58
1-IFI-51	Boron Injection to Reactor Coolant Loop #1 Flow Indicator Transmitter	Boron Injection	Containment	598	Annulus - Quadrant #1	58
1-IMO-51	Boron Injection to Reactor Coolant Loop #1 Motor Operated Shutoff Valve	Boron Injection	Containment	598	Annulus - Quadrant #1	58
1-MFC-110	Steam Generator OME-3-1 Channel I Steam Flow Control Transmitter	Main Steam	Containment	598	Annulus - Quadrant #1	58
1-MFC-111	Steam Generator OME-3-1 Channel II Steam Flow Control Transmitter	Main Steam	Containment	598	Annulus - Quadrant #1	58
1-MFC-141	Steam Generator OME-3-4 Channel II Steam Flow Control Transmitter	Main Steam	Containment	598	Annulus - Quadrant #1	58
1-XSO-25	Reactor Coolant Pump #1 Seal #1 Leakoff to RCP Seal Water Return Filter Air Operated Shutoff Valve QRV-10 Control Solenoid	Control Air	Containment	598	Annulus - Quadrant #1	58

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-33-IRV-60	Safety Injection to Accumulator Fill Line Control Valve IRV-60 Limit Switch	250VDC Control and Instrumentation	Containment	598	Annulus - Quadrant #2	59
1-33-QRV-150	RCP Startup Seal System Bypass to Seal Water Return Filter Shutoff Valve QRV- 150 Limit Switch	250VDC Control and Instrumentation	Containment	598	Annulus - Quadrant #2	59
1-ICM-111	RHR to Reactor Coolant Loops #2 & #3 Cold Legs Motor Operated Containment Isolation Valve	Residual Heat Removal	Containment	598	Annulus - Quadrant #2	59
1-ICM-129	Reactor Coolant Loop #2 Hot Leg to Residual Heat Removal Pumps Suction Motor Operated Containment Isolation Valve	Residual Heat Removal	Containment	598	Annulus - Quadrant #2	59
1-IFI-52	Boron Injection to Reactor Coolant Loop #2 Flow Indicator Transmitter	Boron Injection	Containment	598	Annulus - Quadrant #2	59
1-IMO-52	Boron Injection to Reactor Coolant Loop #2 Motor Operated Shutoff Valve	Boron Injection	Containment	598	Annulus - Quadrant #2	59
1-IRV-60	Safety Injection to Accumulator Fill Line Air Operated Control Valve	Safety Injection	Containment	598	Annulus - Quadrant #2	59

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-MFC-120	Steam Generator OME-3-2 Channel II Steam Flow Control Transmitter	Main Steam	Containment	598	Annulus - Quadrant #2	59
1-MFC-121	Steam Generator OME-3-2 Channel I Steam Flow Control Transmitter	Main Steam	Containment	598	Annulus - Quadrant #2	59
1-QCM-250	Reactor Coolant Pump Seal Water Return Train 'A' Containment Isolation Motor Operated Valve	CVCS (Charging)	Containment	598	Annulus - Quadrant #2	59
1-QCR-301	CVCS Letdown Isolation	CVCS (Letdown)	Containment	598	Annulus - Quadrant #2	59
1-QRV-150	Reactor Coolant Pumps Startup Seal System Bypass to Seal Water Return Filter QC-109 0.75" Air Operated Shutoff Valve	Reactor Coolant (Pump Seal Water Inj/Leakoff)	Containment	598	Annulus - Quadrant #2	59
1-SV-102	Residual Heat Removal to Reactor Coolant Loops #2 & #3 Cold Legs Safety Valve	Residual Heat Removal	Containment	598	Annulus - Quadrant #2	59
1-SV-103	Reactor Coolant Loop #2 Hot Leg to Residual Heat Removal Pumps Safety Valve	Residual Heat Removal	Containment	598	Annulus - Quadrant #2	59

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-166	Safety Injection to Accumulator Fill Line Control Valve IRV-60 Control Solenoid	Control Air	Containment	598	Annulus - Quadrant #2	59
1-XSO-250	Reactor Coolant Pumps Startup Seal System Bypass to Seal Water Return Filter Air Operated Shutoff Valve QRV-150 Control Solenoid	Control Air	Containment	598	Annulus - Quadrant #2	59
1-XSO-26	Reactor Coolant Pump #2 Seal #1 Leakoff to RCP Seal Water Return Filter Air Operated Shutoff Valve QRV-20 Control Solenoid	Control Air	Containment	598	Annulus - Quadrant #2	59
1-33-QRV-10	Reactor Coolant Pump #1 Seal #1 Leakoff to RCP Seal Water Return Filter Shutoff Valve QRV-10 Limit Switch	250VDC Control and Instrumentation	Containment	617	Lower Containment, Quadrant #1	60
1-OME-3-1	Steam Generator No. 1	Main Steam	Containment	609	Lower Containment, Quadrant #1	60
1-QRV-10	Reactor Coolant Pump #1 Seal #1 Leakoff to RCP Seal Water Return Filter QC-109 2" Air Operated Shutoff Valve	Reactor Coolant (Pump Seal Water Inj/Leakoff)	Containment	617	Lower Containment, Quadrant #1	60

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-33-QRV-20	Reactor Coolant Pump #2 Seal #1 Leakoff to RCP Seal Water Return Filter Shutoff Valve QRV-20 Limit Switch	250VDC Control and Instrumentation	Containment	625	Lower Containment, Quadrant #2	61
1-IMO-128	Reactor Coolant Loop #2 Hot Leg to Residual Heat Removal Pumps Suction Motor Operated Shutoff Valve	Residual Heat Removal	Containment	617	Lower Containment, Quadrant #2	61
1-OME-3-2	Steam Generator No. 2	Main Steam	Containment	609	Lower Containment, Quadrant #2	61
1-QRV-20	Reactor Coolant Pump #2 Seal #1 Leakoff to RCP Seal Water Return Filter QC-109 2" Air Operated Shutoff Valve	Reactor Coolant (Pump Seal Water Inj/Leakoff)	Containment	625	Lower Containment, Quadrant #2	61
1-33-QRV-30	Reactor Coolant Pump #3 Seal #1 Leakoff to RCP Seal Water Return Filter Shutoff Valve QRV-30 Limit Switch	250VDC Control and Instrumentation	Containment	612	Lower Containment, Quadrant #3	62
1-OME-3-3	Steam Generator No. 3	Main Steam	Containment	609	Lower Containment, Quadrant #3	62

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-QRV-30	Reactor Coolant Pump #3 Seal #1 Leakoff to RCP Seal Water Return Filter QC--09 2" Air Operated Shutoff Globe Valve	Reactor Coolant (Pump Seal Water Inj/Leakoff)	Containment	612	Lower Containment, Quadrant #3	62
1-TK-253-1	Pressurizer Train 'B' Pressure Relief Valve NRV-152 Reserve Control Air Tank	Control Air	Containment	625	Lower Containment, Quadrant #3	62
1-TK-253-2	Pressurizer Train 'A' Pressure Relief Valve NRV-153 Reserve Control Air Tank	Control Air	Containment	625	Lower Containment, Quadrant #3	62
1-33-QRV-40	Reactor Coolant Pump #4 Seal #1 Leakoff to RCP Seal Water Return Filter Shutoff Valve QRV-40 Limit Switch	250VDC Control and Instrumentation	Containment	612	Lower Containment, Quadrant #4	63
1-CA-554	Containment 85 PSI Control Air Ring Header #2 to Control Valve NRV-153 Check Valve	Control Air	Containment	625	Lower Containment, Quadrant #4	63
1-CA-565	Containment 85 PSI Control Air Ring Header #2 to Control Valve NRV-152 Check Valve	Control Air	Containment	625	Lower Containment, Quadrant #4	63

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-OME-3-4	Steam Generator No. 4	Main Steam	Containment	609	Lower Containment, Quadrant #4	63
1-QRV-40	Reactor Coolant Pump #4 Seal #1 Leakoff to RCP Seal Water Return Filter QC-109 2" Air Operated Shutoff Globe Valve	Reactor Coolant (Pump Seal Water Inj/Leakoff)	Containment	612	Lower Containment, Quadrant #4	63
1-NRI-21	Nuclear Instrumentation Channel I Wide Range Radiation Detector	Nuclear Instrumentation	Containment	621	Reactor Vessel Head Area	64
1-XSO-28	Reactor Coolant Pump #4 Seal #1 Leakoff to RCP Seal Water Return Filter Air Operated Shutoff Valve QRV-40 Control Solenoid	Control Air	Containment	612	Regenerative Heat Exchanger Room	66
1-NLI-151	Pressurizer OME-4 Level Indicator Transmitter	Reactor Coolant	Containment	612	Instrumentation Room	67
1-NLP-151	Pressurizer OME-4 Protection Channel I Level Transmitter	Reactor Coolant	Containment	612	Instrumentation Room	67
1-NLP-152	Pressurizer OME-4 Protection Channel II Level Transmitter	Reactor Coolant	Containment	612	Instrumentation Room	67

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NLP-153	Pressurizer OME-4 Protection Channel III Level Transmitter	Reactor Coolant	Containment	612	Instrumentation Room	67
1-NPP-151	Pressurizer OME-4 Protection Channel I Pressure Transmitter	Reactor Coolant	Containment	612	Instrumentation Room	67
1-NPP-152	Pressurizer OME-4 Protection Channel II Pressure Transmitter	Reactor Coolant	Containment	612	Instrumentation Room	67
1-NPP-153	Pressurizer OME-4 Protection Channel III Pressure Transmitter	Reactor Coolant	Containment	612	Instrumentation Room	67
1-NPS-153	Pressurizer OME-4 Protection Channel IV Pressure Transmitter	Reactor Coolant	Containment	612	Instrumentation Room	67
1-BLP-110	Steam Generator OME-3-1 Channel 4 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	Accumulator Tank #1 Area	68
1-BLI-120	Steam Generator OME-3-2 Wide Range Level Indicator Transmitter	Main Steam (SG)	Containment	612	Accumulator Tank #2 Area	69

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-BLP-120	Steam Generator OME-3-2 Channel 4 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	Accumulator Tank #2 Area	69
1-BLP-122	Steam Generator OME-3-2 Channel 3 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	Accumulator Tank #2 Area	69
1-BLP-131	Steam Generator OME-3-3 Channel 1 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	Accumulator Tank #3 Area	70
1-BLI-140	Steam Generator OME-3-4 Wide Range Level Indicator Transmitter	Main Steam (SG)	Containment	612	Accumulator Tank #4 Area	71
1-BLP-140	Steam Generator OME-3-4 Channel 4 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	Accumulator Tank #4 Area	71
1-BLP-142	Steam Generator OME-3-4 Channel 3 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	Accumulator Tank #4 Area	71

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-BLI-110	Steam Generator OME-3-1 Wide Range Level Indicator Transmitter	Main Steam (SG)	Containment	612	East Containment Lower Vent Room	72
1-BLP-111	Steam Generator OME-3-1 Channel 2 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	East Containment Lower Vent Room	72
1-BLP-112	Steam Generator OME-3-1 Channel 3 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	East Containment Lower Vent Room	72
1-BLP-141	Steam Generator OME-3-4 Channel 2 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	East Containment Lower Vent Room	72
1-IMO-315	East RHR and North Safety Injection to Reactor Coolant Loops #1 and #4 Hot Legs Motor Operated Shutoff Valve	Residual Heat Removal	Containment	612	East Containment Lower Vent Room	72

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)


<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-IMO-316	East RHR and North Safety Injection to Reactor Coolant Loops #1 and #4 Cold Legs Motor Operated Shutoff Valve	Residual Heat Removal	Containment	612	East Containment Lower Vent Room	72
1-NPS-122	Reactor Coolant Loop #1 Hot Leg Wide Range Pressure Transmitter	Reactor Coolant	Containment	612	East Containment Lower Vent Room	72
1-SI-152N	RHR to SI Pumps Check Valve	Residual Heat Removal	Containment	612	East Containment Lower Vent Room	72
1-BLI-130	Steam Generator OME-3-3 Wide Range Level Indicator Transmitter	Main Steam (SG)	Containment	612	West Containment Lower Vent Room	73
1-BLP-121	Steam Generator OME-3-2 Channel 1 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	West Containment Lower Vent Room	73

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-BLP-130	Steam Generator OME-3-3 Channel 4 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	West Containment Lower Vent Room	73
1-BLP-132	Steam Generator OME-3-3 Channel 3 Reactor Protection Input Narrow Range Level Transmitter	Main Steam (SG)	Containment	612	West Containment Lower Vent Room	73
1-IMO-325	West RHR and South Safety Injection to Reactor Coolant Loops #2 and #3 Hot Legs Motor Operated Shutoff Valve	Residual Heat Removal	Containment	612	West Containment Lower Vent Room	73
1-IMO-326	West RHR and South Safety Injection to Reactor Coolant Loops #2 and #3 Cold Legs Motor Operated Shutoff Valve	Residual Heat Removal	Containment	612	West Containment Lower Vent Room	73
1-NPS-121	Reactor Coolant Loop #2 Hot Leg Wide Range Pressure Transmitter	Reactor Coolant	Containment	612	West Containment Lower Vent Room	73


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Equipment Required to Shutdown Reactor (Unit 1)


(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SI-152S	RHR to SI Pumps Check Valve	Residual Heat Removal	Containment	612	West Containment Lower Vent Room	73
1-XSO-320	CVCS Letdown Isolation Valve QCR-301 Control Solenoid	Control Air	Containment	612	Hv-Ceq-2 Fan Room	74
1-33-NRV-151	Pressurizer Train B Pressure Relief Valve NRV-151 Limit Switch	250VDC Control and Instrumentation	Containment	650	Pressurizer Enclosure, Interior	81
1-33-NRV-152	Pressurizer Train B Pressure Relief Valve NRV-152 Limit Switch	250VDC Control and Instrumentation	Containment	650	Pressurizer Enclosure, Interior	81
1-33-NRV-153	Pressurizer Train A Pressure Relief Valve NRV-153 Limit Switch	250VDC Control and Instrumentation	Containment	650	Pressurizer Enclosure, Interior	81
1-NMO-151	Pressurizer Relief Valve NRV-151 Upstream Motor Operated Shutoff Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NMO-152	Pressurizer Relief Valve NRV-152 Upstream Motor Operated Shutoff Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-NMO-153	Pressurizer Relief Valve NRV-153 Upstream Motor Operated Shutoff Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-NRV-151	Pressurizer Train 'B' Pressure Relief Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-NRV-152	Pressurizer Train 'B' Pressure Relief Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-NRV-153	Pressurizer OME-4 Train 'A' Pressure Relief Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-NS0-62	Pressurizer OME-4 Post Accident Vent Train 'A' Solenoid Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NSO-61	Post Accident Vent Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-NSO-63	Post Accident Vent Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-NSO-64	Pressurizer OME-4 Post Accident Vent Train 'B' Solenoid Valve	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-SV-45A	Pressurizer OME-4 Safety Valve 'A'	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-SV-45B	Pressurizer OME-4 Safety Valve 'B'	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81
1-SV-45C	Pressurizer OME-4 Safety Valve 'C'	Reactor Coolant	Containment	650	Pressurizer Enclosure, Interior	81

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-503	Pressurizer Train 'B' Pressure Relief Valve NRV-151 Control Solenoid	Control Air	Containment	650	Pressurizer Enclosure, Interior	81
1-XSO-505	Pressurizer Train 'B' Pressure Relief Valve NRV-152 Control Solenoid	Control Air	Containment	652	Pressurizer Enclosure, Interior	81
1-XSO-507	Pressurizer Train 'A' Pressure Relief Valve NRV-153 Control Solenoid	Control Air	Containment	652	Pressurizer Enclosure, Interior	81
1-FFS-254	East Motor Driven Auxiliary Feedwater Pump PP-3E Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	Auxiliary Feed Pump East Hallway	83
1-FFS-255	East Motor Driven Auxiliary Feedwater Pump PP-3E Discharge Flow Switch	Auxiliary Feedwater	Turbine	591	Auxiliary Feed Pump East Hallway	83
1-TK-253-3	Pressurizer Train 'B' Pressure Relief Valve NRV-152 Emergency Air Tank	Control Air	Containment	650	Upper Containment, Quadrant #4	86

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-TK-253-4	Pressurizer Train 'A' Pressure Relief Valve NRV-153 Emergency Air Tank	Control Air	Containment	650	Upper Containment, Quadrant #4	86
1-XRV-152	Backup Air to 1-NRV-152 Pressure Regulator Valve	Control Air	Containment	650	Upper Containment, Quadrant #4	86
1-XRV-153	Backup Air to 1-NRV-153 Pressure Regulator Valve	Control Air	Containment	650	Upper Containment, Quadrant #4	86
1-XRV-154	Backup Air to 1-NRV-152 Low Pressure Trip Valve	Control Air	Containment	650	Upper Containment, Quadrant #4	86
1-XRV-155	Backup Air to 1-NRV-152 Positive Air Shutoff Valve	Control Air	Containment	650	Upper Containment, Quadrant #4	86
1-XRV-156	Backup Air to 1-NRV-153 Low Pressure Trip Valve	Control Air	Containment	650	Upper Containment, Quadrant #4	86

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XRV-157	Backup Air to 1-NRV-153 Positive Air Shutoff Valve	Control Air	Containment	650	Upper Containment, Quadrant #4	86
1-NRI-23	Nuclear Instrumentation Channel III Source Range Radiation Detector	Nuclear Instrumentation	Containment	626	Reactor Cavity	105
1-20-SV-1-AB	Solenoid Valve to POV-1-AB	Compressed Air	Auxiliary	587	AB EDG Room	121
1-20-SV-2-AB	Solenoid Valve to POV-2-AB	Compressed Air	Auxiliary	587	AB EDG Room	121
1-20-SV-3-AB	Solenoid Valve to XRV-220	Compressed Air	Auxiliary	587	AB EDG Room	121
1-ABD-A	600VAC Motor Control Center ABD-A	600VAC	Auxiliary	587	AB EDG Room	121
1-ABD-B	600VAC Motor Control Center ABD-B	600VAC	Auxiliary	587	AB EDG Room	121
1-CPS-312	AB Emergency Diesel Jacket Water Pump QT-130-AB1 Discharge Pressure Switch	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-CPS-314	AB Emergency Diesel Jacket Water Pump QT-130-AB2 Discharge Pressure Switch	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121
1-DG-101A	AB Emergency Diesel Starting Air Compressor QT-142-AB2 Outlet Check Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-DG-103A	AB Emergency Diesel Starting Air Compressor QT-142-AB1 Outlet Check Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-DGAB	AB Emergency Diesel Generator OME-150-AB Control Subpanel	Diesel Generator, Control and Instrumentation	Auxiliary	587	AB EDG Room	121
1-DGAB-FFCKT	AB Emergency Diesel Generator OME-150-AB Field Flash Circuit Transformer	Diesel Generator, Control and Instrumentation	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-DGAB-INV	AB Emergency Diesel Generator OME-150-AB Inverter	Diesel Generator, Control and Instrumentation	Auxiliary	587	AB EDG Room	121
1-DGABX	OME-150-CD Auxiliary Subpanel	Diesel Generator, Control and Instrumentation	Auxiliary	587	AB EDG Room	121
1-ELSC	120/128 VAC Emergency Local Shutdown Distribution Panel	120/208VAC Misc Safety Related Power Distribution	Auxiliary	587	AB EDG Room	121
1-ELSCX	120/208VAC Emergency Local Shutdown Auxiliary Distribution Panel	120/208VAC Misc Safety Related Power Distribution	Auxiliary	587	AB EDG Room	121
1-HE-47-ABN	AB Emergency Diesel North Combustion Air Aftercooler	Diesel Combustion Air	Auxiliary	587	AB EDG Room	121
1-HE-47-ABS	AB Emergency Diesel South Combustion Air Aftercooler	Diesel Combustion Air	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HE-55-AB	Governor Oil Cooler For AB Emergency Diesel Engine	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121
1-HV-DDP-AB1	AB Emergency Diesel Generator Room Ventilation Exhaust Fan HV-DGX-1 Tempering Air Damper	Diesel Room Ventilation	Auxiliary	587	AB EDG Room	121
1-HV-DDP-AB2	AB Emergency Diesel Generator Room Ventilation Supply Fan HV-DGS-1 Tempering Air Damper	Diesel Room Ventilation	Auxiliary	587	AB EDG Room	121
1-HV-DGS-2	CD Emergency Diesel Generator Room Ventilation Supply Fan	Diesel Room Ventilation	Auxiliary	587	AB EDG Room	121
1-HV-DGS-3	AB Emergency Diesel Generator Room Cabinet Ventilation Supply Fan	Diesel Room Ventilation	Auxiliary	587	AB EDG Room	121
1-HV-DGX-1	AB Emergency Diesel Generator Room Ventilation Exhaust Fan	Diesel Room Ventilation	Auxiliary	587	AB EDG Room	121
1-LLS-120	AB Emergency Diesel Fuel Oil Day Tank QT-107-AB High Level Switch #1	Diesel Fuel Oil	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-LLS-121	AB Emergency Diesel Fuel Oil Day Tank QT-107-AB Low Level Switch #1	Diesel Fuel Oil	Auxiliary	587	AB EDG Room	121
1-LLS-122	AB Emergency Diesel Fuel Oil Day Tank QT-107-AB High Level Switch #2	Diesel Fuel Oil	Auxiliary	587	AB EDG Room	121
1-LLS-123	AB Emergency Diesel Fuel Oil Day Tank QT-107-AB Low Level Switch #2	Diesel Fuel Oil	Auxiliary	587	AB EDG ROOM	121
1-LRV-240	AB Emergency Diesel Upper Valve Gear Lube Oil Regulator #1	Diesel Lube Oil	Auxiliary	587	AB EDG Room	121
1-LRV-241	AB Emergency Diesel Upper Valve Gear Lube Oil Regulator #2	Diesel Lube Oil	Auxiliary	587	AB EDG Room	121
1-LSO-240	AB Emergency Diesel Upper Valve Gear Lubrication Control Solenoid #1	Diesel Lube Oil	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-LSO-241	AB Emergency Diesel Upper Valve Gear Lubrication Control Solenoid #2	Diesel Lube Oil	Auxiliary	587	AB EDG Room	121
1-OME-150-AB	AB Emergency Diesel Generator	Diesel Generator, Control and Instrumentation	Auxiliary	587	AB EDG Room	121
1-POV-1-AB	Starting Air Syst/Pilot Operated 4-Way Valve For Air Start of XRVS For Diesel Engine	Compressed Air	Auxiliary	587	AB EDG Room	121
1-POV-2-AB	Starting Air Syst/Pilot Operated 4-Way Valve For Air Start of XRVS For Diesel Engine	Compressed Air	Auxiliary	587	AB EDG Room	121
1-PP-120-AB	Engine Driven Pump	Diesel Fuel Oil	Auxiliary	587	AB EDG Room	121
1-PP-122-AB	Engine Driven Lube Oil Pump	Diesel Lube Oil	Auxiliary	587	AB EDG Room	121
1-PRV-1-AB	Pressure Regulator For Starting Air Solenoid 20-SV-1-AB	Compressed Air	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-PRV-1-CD	Pressure Regulator For Starting Air Solenoid 20-SV-1-CD	Compressed Air	Auxiliary	587	AB EDG Room	121
1-QT-101-AB	AB Emergency Diesel Air Intake Silencer	Diesel Combustion Air	Auxiliary	587	AB EDG Room	121
1-QT-107-AB	AB Emergency Diesel Fuel Oil Day Tank	Diesel Fuel Oil	Auxiliary	587	AB EDG Room	121
1-QT-110-AB	AB Emergency Diesel Lube Oil Cooler	Diesel Lube Oil	Auxiliary	587	AB EDG Room	121
1-QT-114-AB	AB Emergency Diesel Lube Oil Cooler QT-110-AB Lube Oil Thermostatic Inlet/Bypass Valve	Diesel Lube Oil	Auxiliary	587	AB EDG Room	121
1-QT-130-AB1	AB Emergency Diesel Jacket Water Pump #1	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121
1-QT-130-AB2	AB Emergency Diesel Jacket Water Pump #2	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121
1-QT-131-AB	AB Emergency Diesel Jacket Water Cooler	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-QT-132-AB	AB Emergency Diesel Jacket Water Cooler QT-131-AB Thermostatic Inlet/Bypass Valve	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121
1-QT-133-AB	Ab Emergency Diesel Jacket Water Surge Tank	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121
1-QT-135-AB	AB Emergency Diesel Auxiliary Jacket Water Pump	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121
1-QT-141-AB1	AB Emergency Diesel Starting Air Receiver #1	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-QT-141-AB2	AB Emergency Diesel Starting Air Receiver #2	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-QT-143-AB1	AB Emergency Diesel Control Air Dryer #1	Diesel Control Air	Auxiliary	587	AB EDG Room	121
1-QT-143-AB2	AB Emergency Diesel Control Air Dryer #2	Diesel Control Air	Auxiliary	587	AB EDG Room	121
1-QT-144-AB	AB Emergency Diesel Fuel Oil Transfer Filter	Diesel Fuel Oil	Auxiliary	587	AB EDG Room	121
1-QT-502-AB	AB Emergency Diesel Turbocharger	Diesel Combustion Air	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SV-120-AB	1-XTC-301 & 1-XTC-302 Control Air Safety Valve	Control Air	Auxiliary	587	AB EDG Room	121
1-SV-139-AB	AB Emergency Diesel Starting Air to Turbocharger Safety Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-SV-200-AB	AB Emergency Diesel Fuel Oil Manifolds to Fuel Oil Day Tank Safety Valve	Diesel Fuel Oil	Auxiliary	587	AB EDG Room	121
1-SV-201-AB2	AB Emergency Diesel Rear Bank Fuel Oil Manifold Safety Valve	Diesel Fuel Oil	Auxiliary	587	AB EDG Room	121
1-SV-216-AB	AB Engine Driven Lube Oil Pump PP- 122-AB Integral Relief Valve	Diesel Lube Oil	Auxiliary	587	AB EDG Room	121
1-SV-61-AB	AB Emergency Diesel Auxiliary Jacket Water Heater QT-134-AB Safety Valve	Diesel Jacket Water	Auxiliary	587	AB EDG Room	121
1-SV-78-AB1	AB Emergency Diesel Starting Air Receiver QT-141-AB1 Safety Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SV-78-AB2	AB Emergency Diesel Starting Air Receiver QT-141-AB2 Safety Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-SV-79-AB1	AB Emergency Diesel Control Air Dryer QT-143-AB1 Safety Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-SV-79-AB2	AB Emergency Diesel Control Air Dryer QT-143-AB2 Safety Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-TR-ELSC	120/208VAC Emergency Local Shutdown Distribution Transformer	120/208VAC Misc Safety Related Power Distribution	Auxiliary	587	AB EDG Room	121
1-VTS-341	AB Emergency Diesel Generator Room Ventilation Exhaust FAN HV-DGX-1 Thermostat	Diesel Room Ventilation	Auxiliary	587	AB EDG Room	121
1-WRV-721	AB Emergency Diesel South Combustion Air Aftercooler HE-47-ABS ESW Inlet/Bypass Valve	Essential Service Water	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-WRV-723	AB Emergency Diesel North Combustion Air Aftercooler HE-47- ABN ESW Inlet/Bypass Valve	Essential Service Water	Auxiliary	587	AB EDG Room	121
1-XPS-300	Diesel Combustion Air/AB Front Bank Air Chest Extreme High Pressure Switch	Diesel Combustion Air	Auxiliary	587	AB EDG Room	121
1-XRV-220	AB Emergency Diesel Starting Air Jet Assist Control Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-XRV-221	AB Emergency Diesel Front Bank Starting Air Shutoff Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-XRV-222	AB Emergency Diesel Rear Bank Starting Air Shutoff Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-XRV-223	AB Emergency Diesel Starting Air to Turbocharger Pressure Reducing Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-XRV-225	CD Emergency Diesel Starting Air Jet Assist Control Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	121
1-XRV-231	AB Emergency Diesel Starting Air to Control Air Dryer #1 Pressure Reducing Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)


<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XRV-232	AB Emergency Diesel Starting Air to Control Air Dryer #2 Pressure Reducing Valve	Diesel Starting Air	Auxiliary	587	AB EDG Room	121
1-XRV-240	1-XTC-301 and 1-XTC-302 Control Air Pressure Reducing Valve (AB)	Diesel Control Air	Auxiliary	587	AB EDG Room	121
QC-225-AB	Duplex Engine Fuel Oil Filter	Diesel Fuel Oil	Auxiliary	587	AB EDG Room	121
1-20-SV-1-CD	Solenoid Valve to POV-1-CD	Compressed Air	Auxiliary	587	CD EDG Room	122
1-20-SV-2-CD	Solenoid Valve to POV-2-CD	Compressed Air	Auxiliary	587	CD EDG Room	122
1-20-SV-3-CD	Solenoid Valve to XRV-225	Compressed Air	Auxiliary	587	CD EDG Room	122
1-ABD-C	600VAC Motor Control Center ABD-C	600VAC	Auxiliary	587	CD EDG Room	122
1-ABD-D	600VAC Motor Control Center ABD-D	600VAC	Auxiliary	587	CD EDG Room	122
1-AFW	120/208VAC Distribution Panel	120/208VAC Misc Safety Related Power Distribution	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1) (for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-AFWX	120/208VAC Auxiliary Distribution Panel	120/208VAC Misc Safety Related Power Distribution	Auxiliary	587	CD EDG Room	122
1-CPS-317	CD Emergency Diesel Jacket Water Pump QT-130-CD1 Discharge Pressure Switch	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-CPS-319	CD Emergency Diesel Jacket Water Pump QT-130-CD2 Discharge Pressure Switch	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-DG-101C	CD Emergency Diesel Starting Air Compressor QT-142-CD2 Outlet Check Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-DG-103C	CD Emergency Diesel Starting Air Compressor QT-142-CD1 Outlet Check Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-DGCD	CD Emergency Diesel Generator OME-150-CD Control Subpanel	Diesel Generator, Control and Instrumentation	Auxiliary	587	CD EDG Room	122
1-DGCD-FFCKT	CD Emergency Diesel Generator OME-150-CD Field Flash CKT Transformer	Diesel Generator, Control and Instrumentation	Auxiliary	587	CD EDG Room	122
1-DGCD-INV	CD Emergency Diesel Generator OME-150-CD Inverter	Diesel Generator, Control and Instrumentation	Auxiliary	587	CD EDG Room	122
1-DGCDX	Equipment Control and Indication Station/CD Emergency Diesel Generator 150 Aux Panel	Diesel Generator, Control and Instrumentation	Auxiliary	587	CD EDG Room	122
1-HE-47-CDN	CD Emergency Diesel North Combustion Air Aftercooler	Diesel Combustion Air	Auxiliary	587	CD EDG Room	122
1-HE-47-CDS	CD Emergency Diesel South Combustion Air Aftercooler	Diesel Combustion Air	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HE-55-CD	Governor Oil Cooler For CD Emergency Diesel Engine	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-HV-DDP-CD1	CD Emergency Diesel Generator Room Ventilation Exhaust Fan HV-DGX-2 Tempering Air Damper	Diesel Room Ventilation	Auxiliary	587	CD EDG Room	122
1-HV-DDP-CD2	CD Emergency Diesel Generator Room Ventilation Supply Fan HV-DGS-2 Tempering Air Damper	Diesel Room Ventilation	Auxiliary	587	CD EDG Room	122
1-HV-DGS-1	AB Emergency Diesel Generator Room Ventilation Supply Fan	Diesel Room Ventilation	Auxiliary	587	CD EDG Room	122
1-HV-DGS-4	CD Emergency Diesel Generator Room Cabinet Ventilation Supply Fan	Diesel Room Ventilation	Auxiliary	587	CD EDG Room	122
1-HV-DGX-2	CD Emergency Diesel Generator Room Ventilation Exhaust Fan	Diesel Room Ventilation	Auxiliary	587	CD EDG Room	122
1-LLS-125	CD Emergency Diesel Fuel Oil Day Tank QT-107-CD High Level Switch #1	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-LLS-126	CD Emergency Diesel Fuel Oil Day Tank QT-107-CD Low Level Switch #1	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122
1-LLS-127	CD Emergency Diesel Fuel Oil Day Tank QT-107-CD High Level Switch #2	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122
1-LLS-128	CD Emergency Diesel Fuel Oil Day Tank QT-107-CD Low Level Switch #2	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122
1-LRV-245	CD Emergency Diesel Upper Valve Gear Lube Oil Regulator #1	Diesel Lube Oil	Auxiliary	587	CD EDG Room	122
1-LRV-246	CD Emergency Diesel Upper Valve Gear Lube Oil Regulator #2	Diesel Lube Oil	Auxiliary	587	CD EDG Room	122
1-LSO-245	CD Emergency Diesel Gen Upper Valve Gear Lubrication Control Solenoid #1	Diesel Lube Oil	Auxiliary	587	CD EDG Room	122
1-LSO-246	CD Emergency Diesel Gen Upper Valve Gear Lubrication Control Solenoid #2	Diesel Lube Oil	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-OME-150-CD	CD Emergency Diesel Generator	Diesel Generator, Control & Instrumentation	Auxiliary	587	CD EDG Room	122
1-POV-1-CD	Starting Air Syst/Pilot Operated 4-Way Valve For Air Start of XRVs For Diesel Engine	Compressed Air	Auxiliary	587	CD EDG Room	122
1-POV-2-CD	Starting Air Syst/Pilot Operated 4-Way Valve For Air Start of XRVs For Diesel Engine	Compressed Air	Auxiliary	587	CD EDG Room	122
1-PP-120-CD	Engine Driven Pump	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122
1-PP-122-CD	Engine Driven Lube Oil Pump	Diesel Lube Oil	Auxiliary	587	CD EDG Room	122
1-QT-101-CD	CD Emergency Diesel Air Intake Silencer	Diesel Combustion Air	Auxiliary	587	CD EDG Room	122
1-QT-107-CD	CD Emergency Diesel Fuel Oil Day Tank	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122
1-QT-110-CD	CD Emergency Diesel Lube Oil Cooler	Diesel Lube Oil	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-QT-114-CD	CD Emergency Diesel Lube Oil Cooler QT-110-CD Lube Oil Thermostatic Inlet/Bypass Valve	Diesel Lube Oil	Auxiliary	587	CD EDG Room	122
1-QT-130-CD1	CD Emergency Diesel Jacket Water Pump #1	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-QT-130-CD2	Cd Emergency Diesel Jacket Water Pump #2	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-QT-131-CD	CD Emergency Diesel Jacket Water Cooler	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-QT-132-CD	CD Emergency Diesel Jacket Water Cooler QT-131-CD Thermostatic Inlet/Bypass Valve	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-QT-133-CD	CD Emergency Diesel Jacket Water Surge Tank	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-QT-135-CD	CD Emergency Diesel Auxiliary Jacket Water Pump	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-QT-141-CD1	CD Emergency Diesel Starting Air Receiver #1	Diesel Starting Air	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-QT-141-CD2	CD Emergency Diesel Starting Air Receiver #2	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-QT-143-CD1	CD Emergency Diesel Control Air Dryer #1	Diesel Control Air	Auxiliary	587	CD EDG Room	122
1-QT-143-CD2	CD Emergency Diesel Control Air Dryer #2	Diesel Control Air	Auxiliary	587	CD EDG Room	122
1-QT-144-CD	CD Emergency Diesel Fuel Oil Transfer Filter	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122
1-QT-502-CD	CD Emergency Diesel Turbocharger	Diesel Combustion Air	Auxiliary	587	CD EDG Room	122
1-SV-120-CD	1-XTC-306 and 1-XTC-307 Control Air Safety Valve	Control Air	Auxiliary	587	CD EDG Room	122
1-SV-139-CD	CD Emergency Diesel Starting Air to Turbocharger Safety Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-SV-200-CD	CD Emergency Diesel Fuel Oil Manifolds to Fuel Oil Day Tank Safety Valve	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SV-201-AB1	AB Emergency Diesel Front Bank Fuel Oil Manifold Safety Valve	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122
1-SV-201-CD1	CD Emergency Diesel Front Bank Fuel Oil Manifold Safety Valve	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122
1-SV-201-CD2	CD Emergency Diesel Rear Bank Fuel Oil Manifold Safety Valve	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122
1-SV-216-CD	CD Engine Driven Lube Oil Pump PP-122-CD Integral Relief Valve	Diesel Lube Oil	Auxiliary	587	CD EDG Room	122
1-SV-61-CD	CD Emergency Diesel Auxiliary Jacket Water Heater QT-134-CD Safety Valve	Diesel Jacket Water	Auxiliary	587	CD EDG Room	122
1-SV-78-CD1	CD Emergency Diesel Starting Air Receiver QT-141-CD1 Safety Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-SV-78-CD2	CD Emergency Diesel Starting Air Receiver QT-141-CD2 Safety Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-SV-79-CD1	CD Emergency Diesel Control Air Dryer QT-143-CD1 Safety Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-SV-79-CD2	CD Emergency Diesel Control Air Dryer QT-143-CD2 Safety Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-TR-AFW	Auxiliary Feedwater 120/208VAC Distribution Panel AFW Supply Transformer	120/208VAC Misc Safety Related Power Distribution	Auxiliary	587	CD EDG Room	122
1-VTS-346	CD Emergency Diesel Generator Room Ventilation Exhaust Fan HV-DGX-2 Thermostat	Diesel Room Ventilation	Auxiliary	587	CD EDG Room	122
1-WRV-725	CD Emergency Diesel South Combustion Air Aftercooler HE-47- CDS ESW Inlet/Bypass Valve	Essential Service Water	Auxiliary	587	CD EDG Room	122
1-WRV-727	CD Emergency Diesel North Combustion Air Aftercooler HE-47- CDN ESW Inlet/Bypass Valve	Essential Service Water	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XPS-305	Diesel Combustion Air/Cd Front Bank Air Chest Extreme High Pressure Switch	Diesel Combustion Air	Auxiliary	587	CD EDG Room	122
1-XRV-226	CD Emergency Diesel Front Bank Starting Air Shutoff Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-XRV-227	CD Emergency Diesel Rear Bank Starting Air Shutoff Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-XRV-228	CD Emergency Diesel Starting Air to Turbocharger Pressure Reducing Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-XRV-236	CD Emergency Diesel Starting Air to Control Air Dryer #1 Pressure Reducing Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-XRV-237	CD Emergency Diesel Starting Air to Control Air Dryer #2 Pressure Reducing Valve	Diesel Starting Air	Auxiliary	587	CD EDG Room	122
1-XRV-245	1-XTC-306 and 1-XTC-307 Control Air Pressure Reducing Valve (CD)	Diesel Control Air	Auxiliary	587	CD EDG Room	122
QC-225-CD	Duplex Engine Fuel Oil Filter	Diesel Fuel Oil	Auxiliary	587	CD EDG Room	122

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-ARA-2	Reactor Protection Train 'A' Auxiliary Relay Cabinet #2	120/220VAC Control and Instrumentation	Auxiliary	633	Control Room	123
1-ARB-2	Reactor Protection Train 'B' Auxiliary Relay Cabinet #2	120/220VAC Control and Instrumentation	Auxiliary	633	Control Room	123
1-CCV-AB	250VDC Train 'B' Critical Solenoid Valves Distribution Panel	250VDC	Auxiliary	633	Control Room	123
1-CCV-CD	250VDC Train 'A' Critical Solenoid Valves Distribution Panel	250VDC	Auxiliary	633	Control Room	123

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-CRAB	250VDC Control Room Distribution Panel CRAB	250VDC	Auxiliary	633	Control Room	123
1-CRCD	250VDC Control Room Distribution Panel CRCD	250VDC	Auxiliary	633	Control Room	123
1-CRID-I	120VAC Control Room Instrument Distribution Channel I Distribution Panel	120VAC Control Room Instrumentation Distr	Auxiliary	633	Control Room	123
1-CRID-II	120VAC Control Room Instrument Distribution Channel II Distribution Panel	120VAC Control Room Instrumentation Distr	Auxiliary	633	Control Room	123
1-CRID-III	120VAC Control Room Instrument Distribution Channel III Distribution Panel	120VAC Control Room Instrumentation Distr	Auxiliary	633	Control Room	123
1-CRID-IV	120VAC Control Room Instrument Distribution Channel IV Distribution Panel	120VAC Control Room Instrumentation Distr	Auxiliary	633	Control Room	123

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-CRID-IV-INV	120VAC Control Room Instrument Distribution System Channel Iv Inverter	120VAC Control Room Instrumentation Distr	Auxiliary	633	Control Room	123
1-NIS-I	Nuclear Instrumentation System Protection Channel I Control Panel	Eqi pment Control and Indication Stations	Auxiliary	633	Control Room	123
1-NIS-III	Nuclear Instrumentation System Protection Channel III Control Panel	Eqi pment Control and Indication Stations	Auxiliary	633	Control Room	123
1-NRI-1	Nuclear Instrumentation Source Range Monitor	Reactor Coolant	Auxiliary	633	Control Room	123
1-NRI-21-PRCSR	Nuclear Instrumentation Wide Range Signal Processor Cabinet	Nuclear Instrumentation	Auxiliary	633	Control Room	123
1-NRI-23-PRCSR	Nuclear Instrumentation Source Range Signal Processor Cabinet	Nuclear Instrumentation	Auxiliary	633	Control Room	123
1-NRI-5	Nuclear Instrumentation Source Range Monitor	Reactor Coolant	Auxiliary	633	Control Room	123

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-PRZ	Pressurizer Control Panel	Reactor Coolant	Auxiliary	633	Control Room	123
1-RC	Reactor Control Rods Control Panel	Rod Control and Instrumentation	Auxiliary	633	Control Room	123
1-RHR	Residual Heat Removal Control Panel	Residual Heat Removal	Auxiliary	633	Control Room	123
1-RPC-I	Reactor Protection Channel I Cab #1,2,3 & 4	Reactor Protection	Auxiliary	633	Control Room	123
1-RPC-II	Reactor Protection Channel II Cabinet #5,6,7,& 8	Reactor Protection	Auxiliary	633	Control Room	123
1-RPC-III	Reactor Protection Channel III Cabinet #9,10 & 11	Reactor Protection	Auxiliary	633	Control Room	123
1-RPC-IV	Reactor Protection Channel IV Cabinet #12 & 13	Reactor Protection	Auxiliary	633	Control Room	123
1-RPS-A	Reactor Protection and Safeguard Actuation Train 'A' Cabinet	Reactor Protection	Auxiliary	633	Control Room	123
1-RPS-B	Reactor Protection and Safeguard Actuation Train 'B' Cabinet	Reactor Protection	Auxiliary	633	Control Room	123

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-RPSX-A	Reactor Protection and Safeguard Actuation Train "A" Auxiliary Cabinet	Reactor Protection	Auxiliary	633	Control Room	123
1-RPSX-B	Reactor Protection and Safeguard Actuation Train "B" Auxiliary Cabinet	Reactor Protection	Auxiliary	633	Control Room	123
1-SA	Station Auxiliaries Control Panel	4160VAC	Auxiliary	633	Control Room	123
1-SG	Steam Generator and Auxiliary Feed Pump Control Panel	Steam Generator	Auxiliary	633	Control Room	123
1-VDAB-1	250VDC Valve Distribution Panel VDAB-1	250VDC	Auxiliary	633	Control Room	123
1-VDAB-2	250VDC Valve Distribution Panel VDAB-2	250VDC	Auxiliary	633	Control Room	123
1-VDAB-1	250VDC Valve Distribution Panel VDAB-1	250VDC	Auxiliary	633	Control Room	123

 An AEP Company	<p align="center">INDIANA MICHIGAN POWER D. C. COOK NUCLEAR PLANT UPDATED FINAL SAFETY ANALYSIS REPORT</p>	Revised: 27.0 Table: 14.4.2-1A Part 5 of 6 Page: 1 of 23
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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-QT-106-CD1	CD Emergency Diesel Fuel Oil Transfer Pump #1	Diesel Fuel Oil	Auxiliary	587	CD EDG Fuel Oil Transfer Pump Room	125
1-QT-106-CD2	CD Emergency Diesel Fuel Oil Transfer Pump #2	Diesel Fuel Oil	Auxiliary	587	CD EDG Fuel Oil Transfer Pump Room	125
1-QT-106-AB1	AB Emergency Diesel Fuel Oil Transfer Pump #1	Diesel Fuel Oil	Auxiliary	587	AB EDG Fuel Oil Transfer Pump Room	126
1-QT-106-AB2	AB Emergency Diesel Fuel Oil Transfer Pump #2	Diesel Fuel Oil	Auxiliary	587	AB EDG Fuel Oil Transfer Pump Room	126
1-HE-63N	Control Room Air Conditioning North Liquid Chiller HV-ACR-1 Evaporator	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HE-63S	Control Room Air Conditioning South Liquid Chiller HV-ACR-2 Evaporator	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HE-64N	Control Room Air Conditioning North Liquid Chiller HV-ACR-1 Condenser	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HE-64S	Control Room Air Conditioning South Liquid Chiller HV-ACR-2 Condenser	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HV-ACR-1	Control Room Air Conditioning System Liquid Chiller Package (North)	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HV-ACR-2	Control Room Air Conditioning System Liquid Chiller Package (South)	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HV-ACRA-1	Control Room Air Conditioning System Air Handling Package (North)	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HV-ACRA-2	Control Room Air Conditioning System Air Handling Package (South)	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HV-ACR-DA-1	Outside Air to Control Room Ventilation Units HV-ACRA-1 and HV-ACRA-2 Vent Damper	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HV-ACR-DA-2	Control Room Ventilation Outside Air Intake Damper	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HV-ACR-DA-3	Control Room Ventilation Return Air Damper	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-HV-ACRF-1	Control Room Pressurizer/Cleanup Filter Supply Fan (East)	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HV-ACRF-2	Control Room Pressurizer/Cleanup Filter Supply Fan (West)	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-PP-82N	Control Room Air Conditioning North Chill Water Circulation Pump	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-PP-82S	Control Room Air Conditioning South Chill Water Circulation Pump	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-TK-76N	Control Room Air Conditioning North Chill Water Expansion Tank	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-TK-76S	Control Room Air Conditioning South Chill Water Expansion Tank	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-VRV-315	Control Room Ventilation Unit HV-ACRA-1 Chilled Water Inlet/Bypass Valve	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-VRV-325	Control Room Ventilation Unit HV-ACRA-2 Chilled Water Inlet/Bypass Valve	Control Room Ventilation	Auxiliary	650	Control Room A/C Room	129
1-WRV-711-1N	ESW from CRAC N Lqd Chiller 1-HV-ACR-1 Cndsr Wtr Reg Vlv (CKT 1)	Essential Service Water	Auxiliary	650	Control Room A/C Room	129

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-WRV-711-2N	ESW from CRAC N Lqd Chiller 1-HV-ACR-1 Cndsr Wtr Reg Vlv (CKT 2)	Essential Service Water	Auxiliary	650	Control Room A/C Room	129
1-WRV-712-1S	ESW from CRAC S Lqd Chiller 1-HV-ACR-2 Cndsr Wtr Reg Vlv (Ckt 1)	Essential Service Water	Auxiliary	650	Control Room A/C Room	129
1-WRV-712-2S	ESW from CRAC S Lqd Chiller 1-HV-ACR-2 Cndsr Wtr Reg Vlv (Ckt 2)	Essential Service Water	Auxiliary	650	Control Room A/C Room	129
1-XSO-315	Control Room Venilation Unit HV-ACRA-1 Chilled Water Inlet/Bypass Valve VRV-315 Control Solenoid	Control Air	Auxiliary	650	Control Room A/C Room	129
1-XSO-325	Control Room Venilation Unit HV-ACRA-2 Chilled Water Inlet/Bypass Valve VRV-325 Control Solenoid	Control Air	Auxiliary	650	Control Room A/C Room	129
1-WFA-701	East Essential Service Water Supply Header Flow Transmitter	Essential Service Water	Turbine	569	ESW Pipe Tunnel	131
1-WFA-705	West Essential Service Water Supply Header Flow Transmitter	Essential Service Water	Turbine	569	ESW Pipe Tunnel	131

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-WMO-705	West Essential Service Water Supply Header Crosstie to Unit 2 Motor Operated Shutoff Valve	Essential Service Water	Turbine	569	ESW Pipe Tunnel	131
1-WMO-707	East Essential Service Water Supply Header Crosstie to Unit 2 Motor Operated Shutoff Valve	Essential Service Water	Turbine	569	ESW Pipe Tunnel	131
1-WPI-705	West Essential Service Water Supply Header Pressure Indicator Transmitter	Essential Service Water	Turbine	569	ESW Pipe Tunnel	131
1-WPI-707	East Essential Service Water Supply Header Pressure Indicator Transmitter	Essential Service Water	Turbine	569	ESW Pipe Tunnel	131
1-WPS-701	East Essential Service Water Supply Header Pressure Switch	Essential Service Water	Turbine	569	ESW Pipe Tunnel	131
1-WPS-705	West Essential Service Water Supply Header Pressure Switch	Essential Service Water	Turbine	569	ESW Pipe Tunnel	131

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
12-HV-ESW-7	Unit 1 East Essential Service Water Pump Room Supply Ventilation Fan	Esw Ventilation	Screenhouse	591	East ESW Pump Room	135
12-HV-ESW-8	Unit 1 East Essential Service Water Pump Room Supply Ventilation Fan	Esw Ventilation	Screenhouse	591	East ESW Pump Room	135
1-OME-34E	East Essential Service Water Pump PP-7E Duplex Strainer	Essential Service Water	Screenhouse	591	East ESW Pump Room	135
1-PP-7E	East Essential Service Water Pump	Essential Service Water	Screenhouse	591	East ESW Pump Room	135
1-VTS-706	Unit 1 West Essential Service Water Pump Room Temperature Switch	Esw Ventilation	Screenhouse	591	East ESW Pump Room	135
1-WMO-701	East Essential Service Water Pump PP-7E Discharge Motor Operated Shutoff Valve	Essential Service Water	Screenhouse	591	East ESW Pump Room	135
12-HV-ESW-5	Unit 1 West Essential Service Water Pump Room Supply Ventilation Fan	Esw Ventilation	Screenhouse	591	West ESW Pump Room	136
12-HV-ESW-6	Unit 1 West Essential Service Water Pump Room Supply Ventilation Fan	Esw Ventilation	Screenhouse	591	West ESW Pump Room	136
1-OME-34W	West Essential Service Water Pump PP-7W Duplex Strainer	Essential Service Water	Screenhouse	591	West ESW Pump Room	136

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-PP-7W	West Essential Service Water Pump	Essential Service Water	Screenhouse	591	West ESW Pump Room	136
1-VTS-708	Unit 1 East Essential Service Water Pump Room Temperature Switch	Esw Ventilation	Screenhouse	591	West ESW Pump Room	136
1-WMO-702	West Essential Service Water Pump PP-7W Discharge Motor Operated Shutoff Valve	Essential Service Water	Screenhouse	591	West ESW Pump Room	136
1-HV-SGRS-2	4KV Room AB 4KV Switchgear Area Ventilation Supply Fan	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-HV-SGRX-2	4KV Room AB 4KV Switchgear Area Ventilation Exhaust Fan	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11A	4KV Bus T11A Switchgear	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11A1	South Safety Injection Pump PP-26S Supply Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-T11A10	Transformer TR11A to 600VAC Bus 11A Supply Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11A11	AB Emergency Diesel Generator to 4KV Bus T11A Supply Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11A12	Circuit Breaker From 69KV to Bus T11A	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11A2	West Motor Driven Aux Feedwater Pump PP-3W Supply Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11A4	West Residual Heat Removal Pump PP-35W Supply Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11A5	West Essential Service Water Pump PP-7W Supply Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-T11A7	West Component Cooling Water Pump PP-10W Supply Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11A8	West Centrifugal Charging Pump PP-50W Supply Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11A9	4KV Bus 1A to Bus T11A Tie Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11B	4KV Bus T11B Switchgear	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11B1	4KV Bus 1B to 4KV Bus T11B Tie Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-T11B2	Circuit Breaker From 69KV Bus to Bus T11B	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-T11B4	AB Emergency Diesel Generator to 4KV Bus T11B Supply Breaker	4160VAC	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-VTS-802	4KV Room AB 4KV Switchgear Area Ventilation Supply Fan HV-SGRS-2 Thermal Sensor	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - AB 4KV Switchgear Area	140
1-WMO-721	West Essential Service Water Supply Header to AB Emergency Diesel Heat Exchangers Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	587	AB EDG Room South Pipe Tunnel	170
1-WMO-723	East Essential Service Water Supply Header to AB Emergency Diesel Heat Exchangers Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	587	AB EDG Room South Pipe Tunnel	170
1-WMO-725	East Essential Service Water Supply Header to CD Emergency Diesel Heat Exchangers Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	587	AB EDG Room South Pipe Tunnel	170

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-WMO-727	West Essential Service Water Supply Header to CD Emergency Diesel Heat Exchangers Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	587	AB EDG Room South Pipe Tunnel	170
1-BATT-AB	Plant Battery AB	250VDC	Auxiliary	609	AB Batt Equip Area	200
1-HV-SGRX-5	AB Battery Equipment Area Battery Room Ventilation Exhaust Fan	Elec. Swgr. Ventilation	Auxiliary	609	AB Batt Equip Area	200
1-MCAB	250VDC Distribution Panel MCAB	250VDC	Auxiliary	609	AB Batt Equip Area	200
1-MDAB	250VDC Distribution Panel MDAB	250VDC	Auxiliary	609	AB Batt Equip Area	200
1-TDAB	250 VDC Train 'B' Transfer Cabinet	250VDC	Auxiliary	609	AB Batt Equip Area	200
1-BATT-CD	Plant Battery CD	250VDC	Auxiliary	626	CD Batt Equip Area	201
1-BATT-CD-SH	Plant Battery BATT-CD Ammeter Shunt Cabinet	250VDC	Auxiliary	626	CD Batt Equip Area	201

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-BC-CD1	Plant Battery BATT-CD Charger #1	250VDC	Auxiliary	626	CD Batt Equi p Area	201
1-BC-CD2	Plant Battery BATT-CD Charger #2	250VDC	Auxiliary	626	CD Batt Equi p Area	201
1-BC-CD-SH	Plant Battery Charger Ammeter BC-CD Shunt Cabinet	250VDC	Auxiliary	626	CD Batt Equi p Area	201
1-BCTC-CD	Plant Battery Chargers BC-CD1 and BC-CD2 Transfer Switch Cabinet	250VDC	Auxiliary	626	CD Batt Equi p Area	201
1-HV-SGRX-6	CD Battery Equipment Area Battery Room Ventilation Exhaust Fan	Elec. Swgr. Ventilation	Auxiliary	626	CD Batt Equi p Area	201
1-MCCD	250VDC Distribution Panel MCCD	250VDC	Auxiliary	626	CD Batt Equi p Area	201
1-MDCD	250VDC Distribution Panel MDCD	250VDC	Auxiliary	626	CD Batt Equi p Area	201
1-TDCD	250 VDC Train 'A' Transfer Cabinet	250VDC	Auxiliary	626	CD Batt Equi p Area	201
1-BATT-AB-SH	Plant Battery Batt-AB Ammeter Shunt Cabinet	250VDC	Auxiliary	609	Inverter Area	202

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)


<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-CRID-III-INV	120VAC Control Room Instrumentation Distribution System Channel III Inverter	120VAC Control Room Instrumentation Distr	Auxiliary	609	Inverter Area	202
1-CRID-II-INV	120VAC Control Room Instrument Distribution System Channel II Inverter	120VAC Control Room Instrumentation Distr	Auxiliary	609	Inverter Area	202
1-CRID-I-INV	120VAC Control Room Instrument Distribution System Channel I Inverter	120VAC Control Room Instrumentation Distr	Auxiliary	609	Inverter Area	202
1-VTS-350	Control Rod Drive Equip Room and Inv Area Vent North Supply Fan HV-SGRS-1A Temperature Switch	Elec. Swgr. Ventilation	Auxiliary	609	Inverter Area	202
1-VTS-354	Ctrl Rod Drv Equip Room and Inv Area Vent Outside Air Inlet Damper HV-SGR-MD-2 Temperature Switch	Elec. Swgr. Ventilation	Auxiliary	609	Inverter Area	202

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-VTS-355	Ctrl Rod Drive Eqp Room and Inv Area Vent Recirc Air Inlet Damper HV-SGR- MD-1 Temperature Switch	Elec. Swgr. Ventilation	Auxiliary	609	Inverter Area	202
1-VTS-356	Crld Eqp ment Room and Inverter Area Ventilation North Supply Fan HV-SGRS- 4A Temp Switch	Elec. Swgr. Ventilation	Auxiliary	609	Inverter Area	202
1-52-BYA	Reactor Rod Control Train 'A' Reactor Trip Bypass Circuit Breaker	Rod Control and Instrumentation	Auxiliary	609	Control Rod Drive Eqp ment Room	203
1-52-BYB	Reactor Rod Control Train 'B' Reactor Trip Bypass Circuit Breaker	Rod Control and Instrumentation	Auxiliary	609	Control Rod Drive Eqp ment Room	203
1-52-RTA	Reactor Rod Control Train 'A' Reactor Trip Circuit Breaker	Rod Control and Instrumentation	Auxiliary	609	Control Rod Drive Eqp ment Room	203


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Equipment Required to Shutdown Reactor (Unit 1)


(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-52-RTB	Reactor Rod Control Train 'B' Reactor Trip Circuit Breaker	Rod Control and Instrumentation	Auxiliary	609	Control Rod Drive Equipment Room	203
1-VTS-351	Control Rod Drive Equipment Room and Inv Area Vent North Supply Fan HV-SGRS-1A Temperature Switch	Elec. Swgr. Ventilation	Auxiliary	609	Control Rod Drive Equipment Room	203
1-VTS-357	Control Rod Drive Equipment Room and Inv Area Ventilation South Supply Fan HV-SGRS-4A Temperature Switch	Elec. Swgr. Ventilation	Auxiliary	609	Control Rod Drive Equipment Room	203
1-11A	600VAC BUS 11A Switchgear	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11A11	600VAC BUS 11A Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-11A2	600VAC MCC AM-A Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11A3	600VAC MCC EZC-A Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11A5	600VAC MCC ABD-A Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11A6	600VAC MCCS AB-A, PS-A, TPP-A, and VCCS ABV-A, AZV-A Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11B	600VAC BUS 11B Switchgear	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11B1	600VAC MCC ABD-B and 1-ELSC Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-11B11	600VAC BUS 11B Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11B2	600VAC MCC EZC-B Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11B4	600VAC MCC 1-AZ-BC Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11C	600VAC BUS 11C Switchgear	600VAC	Auxiliary	609	4KV Room – 600V Switchgear Area	204
1-11C1	600V BUS 11C Supply Breaker	600VAC	Auxiliary	609	4KV Room – 600V Switchgear Area	204
1-11C10	600VAC MCC ABD-C and 1-AFW Supply Breaker	600VAC	Auxiliary	609	4KV Room – 600V Switchgear Area	204

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-11C6	600VAC MCC EZC-C Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11D	600VAC BUS 11D Switchgear	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11D1	600V BUS 11D Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11D14	600VAC MCC 1-AB-D, VCC 1-ABV-D, MCC 1-PS-D Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11D5	600VAC MCC ABD-D Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-11D6	600VAC MCC EZC-D Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-11D8	600VAC MCC AM-D Supply Breaker	600VAC	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-CRID-I-CVT	120VAC Control Room Instrument Distribution Channel I Constant Voltage Transformer	120VAC Control Room Instrumentation Distr	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-CRID-II-CVT	120VAC Control Room Instrument Distribution Channel II Constant Voltage Transformer	120VAC Control Room Instrumentation Distr	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-CRID-III-CVT	120VAC Control Room Instrument Distribution Channel III Constant Voltage Transformer	120VAC Control Room Instrumentation Distr	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-CRID-IV-CVT	120VAC Control Room Instrument Distribution Channel IV Constant Voltage Transformer	120VAC Control Room Instrumentation Distr	Auxiliary	609	4KV Room - 600V Switchgear Area	204

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HV-SGR-MD-1	Control Rod Drive Equipment Room and Inverter Area Ventilation Recirculating Air Inlet Damper	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-HV-SGR-MD-2	Control Rod Drive Equipment Room and Inverter Area Ventilation Outside Air Inlet Damper	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-HV-SGR-MD-3	4KV ROOM 600V Switchgear Transformers TR11A & TR11C Area Ventilation Supply Fan HV-SGRS-8 Suction Damper	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-HV-SGR-MD-4	4KV ROOM 600V Switchgear Transformers TR11B & TR11D Area Ventilation Supply Fan HV-SGRS-7 Suction Damper	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-HV-SGRS-1A	Control Rod Drive Equipment Room and Inverter Area Ventilation North Supply Fan	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-HV-SGRS-4A	Control Rod Drive Equipment Room and Inverter Area Ventilation South Supply Fan	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600V Switchgear Area	204

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-HV-SGRS-7	4KV ROOM 600 Volt Switchgear Transformers TR11B and TR11D Area Ventilation Supply Fan	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600V Switchgear Area	204
1-HV-SGRS-8	4KV ROOM 600 Volt Switchgear Transformers TR11A and TR11C Area Ventilation Supply Fan	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600v Switchgear Area	204
1-TR11A	600V BUS 11A Supply Transformer	600VAC	Auxiliary	609	4KV Room - 600v Switchgear Area	204
1-TR11B	600V BUS 11B Supply Transformer	600VAC	Auxiliary	609	4KV Room - 600v Switchgear Area	204
1-TR11C	600V BUS 11C Supply Transformer	600VAC	Auxiliary	609	4KV Room - 600v Switchgear Area	204
1-TR11D	600V BUS 11D Supply Transformer	600VAC	Auxiliary	609	4KV Room - 600v Switchgear Area	204

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-VTS-352	4KV ROOM 600 Volt Switchgear Xfrms TR11B and TR11D Area Vent Supply Fan HV-SGRS-7 Temperature Switch	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600v Switchgear Area	204
1-VTS-808	4KV ROOM 600V Swgr Xfmrs TR11A and Tr11c Area Vent Supply Fan HV-SGRS-8 Temp Switch Temp Switch	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - 600v Switchgear Area	204
1-BC-AB1	Plant Battery Batt-AB Battery Charger #1	250VDC	Auxiliary	613	4KV Room - Mezzanine Area	205
1-BC-AB2	Plant Battery Batt-AB Battery Charger #2	250VDC	Auxiliary	613	4KV Room - Mezzanine Area	205
1-BC-AB-SH	Plant Battery Charger Ammeter BC-AB Shunt Cabinet	250VDC	Auxiliary	613	4KV Room - Mezzanine Area	205
1-BCTC-AB	Plant Battery Chargers BC-AB1 and BC-AB2	250VDC	Auxiliary	613	4KV Room - Mezzanine Area	205
1-EZC-A	600VAC Motor Control Center EZC-A	600VAC	Auxiliary	613	4KV Room - Mezzanine Area	205
1-EZC-B	600VAC Motor Control Center EZC-B	600VAC	Auxiliary	613	4KV Room - Mezzanine Area	205

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-EZC-C	600VAC Motor Control Center EZC-C	600VAC	Auxiliary	613	4KV Room - Mezzanine Area	205
1-EZC-D	600VAC Motor Control Center EZC-D	600VAC	Auxiliary	613	4KV Room - Mezzanine Area	205
1-HV-SGR-MD-5	600VAC Motor Control Center Mezzanine Area VENTILATION Supply Fan HV-SGRS-9 Vent Damper	Elec. Swgr. Ventilation	Auxiliary	613	4KV Room - Mezzanine Area	205
1-HV-SGRS-9	600VAC Motor Control Center Mezzanine Area Ventilation Supply Fan	Elec. Swgr. Ventilation	Auxiliary	613	4KV Room - Mezzanine Area	205
1-VTS-353	600VAC Motor Control Center Mezzanine Area Vent Supply Fan HV-SGRS-9 Temperature Switch	Elec. Swgr. Ventilation	Auxiliary	613	4KV Room - Mezzanine Area	205

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Equipment Required to Shutdown Reactor (Unit 1)

(for High Energy Pipe Ruptures Outside the Containment)


<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-VTS-805	4KV Room 600V Swgr Xfmrs TR11B and TR11D HV-SGRS-7 Temp Switch Thermal Sensor	Elec. Swgr. Ventilation	Auxiliary	613	4KV Room - Mezzanine Area	205
1-HV-SGRS-3	4KV Room CD 4KV Switchgear Area Ventilation Supply Fan	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-HV-SGRX-3	4KV Room CD 4KV Switchgear Area Ventilation Exhaust Fan	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11C	4KV BUS T11C Switchgear	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11C1	4KV BUS 1C to 4KV BUS T11C Tie Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11C2	Circuit Breaker - 4KV FROM 69KV to BUS T11C	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206

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Equipment Required to Shutdown Reactor (Unit 1) (for High Energy Pipe Ruptures Outside the Containment)


<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-T11C3	CD Emergency Diesel Generator to 4KV BUS T11C Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D	4KV BUS T11D Switchgear	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D1	4KV Emergency Power BUS EP to 4KV BUS T11D Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D10	East Essential Service Water Pump PP-7E Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D11	East Motor Driven Auxiliary Feedwater Pump PP-3E Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D12	4KV BUS 1D to 4KV BUS T11D Tie Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)


<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-T11D2	Transformer TR11D to 600VAC BUS 11D Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D3	East Component Cooling Water Pump PP-10E Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D5	North Safety Injection Pump PP-26N Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D6	East RHR Pump PP-35E Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D7	East Centrifugal Charging Pump PP-50E Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-T11D8	CD Emergency Diesel Generator to 4KV BUS T11D Supply Breaker	4160VAC	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206

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Equipment Required to Shutdown Reactor (Unit 1) (for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-VTS-803	4KV Room CD 4KV Switchgear Area Ventilation Supply Fan HV-SGRS-3 THERMAL SENSOR	Elec. Swgr. Ventilation	Auxiliary	609	4KV Room - CD 4KV Switchgear Area	206
1-PS-A	600VAC Motor Control Center PS-A	600VAC	Screenhouse	594	Traveling Screen MCC Upper Room	221
1-PS-D	600VAC Motor Control Center PS-D	600VAC	Screenhouse	594	Traveling Screen MCC Upper Room	221
12-TK-47-AB	AB Diesel Fuel Oil Storage Tank	Diesel Fuel Oil	Grounds	609	Inner Plant Grounds	244
12-TK-47-CD	CD Diesel Fuel Oil Storage Tank	Diesel Fuel Oil	Grounds	609	Inner Plant Grounds	244
1-HV-DGS-DCD	CD Emergency Diesel Generator Room Ventilation Supply Fan HV-DGS-2 Outside Air Shutoff Damper	Diesel Room Ventilation	Auxiliary	609	Inner Plant Grounds	244
1-QT-100-AB	AB Emergency Diesel Air Intake Filter	Diesel Combustion Air	Grounds	609	Inner Plant Grounds	244

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-QT-100-CD	CD Emergency Diesel Air Intake Filter	Diesel Combustion Air	Grounds	609	Inner Plant Grounds	244
1-QT-104-AB	AB Emergency Diesel Exhaust Silencer	Diesel Combustion Air	Grounds	609	Inner Plant Grounds	244
1-QT-104-CD	CD Emergency Diesel Exhaust Silencer	Diesel Combustion Air	Grounds	609	Inner Plant Grounds	244
1-QT-111-AB	AB Emergency Diesel Lube Oil Before and After Pump	Diesel Lube Oil	Auxiliary	579	AB EDG Lube Oil Pit	257
1-QT-112-AB	AB Emergency Diesel Full Flow Lube Oil Filter	Diesel Lube Oil	Auxiliary	579	AB EDG Lube Oil Pit	257
1-QT-113-AB1	AB Emergency Diesel Full Flow Lube Oil Strainer #1	Diesel Lube Oil	Auxiliary	579	AB EDG Lube Oil Pit	257
1-QT-113-AB2	AB Emergency Diesel Full Flow Lube Oil Strainer #2	Diesel Lube Oil	Auxiliary	579	AB EDG Lube Oil Pit	257
1-QT-115-AB	AB Emergency Diesel Lube Oil Sump Tank	Diesel Lube Oil	Auxiliary	579	AB EDG Lube Oil Pit	257
1-QT-116-AB	AB Emergency Diesel Lube Oil Heater Tank	Diesel Lube Oil	Auxiliary	579	AB EDG Lube Oil Pit	257

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-QT-117-AB	AB Emergency Diesel Lube Oil Heater QT-116-AB Pump	Diesel Lube Oil	Auxiliary	579	AB EDG Lube Oil Pit	257
1-QT-118-AB	AB Emergency Diesel Bypass Lube Oil Filter	Diesel Lube Oil	Auxiliary	579	AB EDG Lube Oil Pit	257
1-QT-119-AB	AB Emergency Diesel Bypass Lube Oil Filter QT-118-AB Pump	Diesel Lube Oil	Auxiliary	579	AB EDG Lube Oil Pit	257
1-QT-111-CD	CD Emergency Diesel Lube Oil Before and After Pump	Diesel Lube Oil	Auxiliary	579	CD EDG Lube Oil Pit	258
1-QT-112-CD	CD Emergency Diesel Full Flow Lube Oil Filter	Diesel Lube Oil	Auxiliary	579	CD EDG Lube Oil Pit	258
1-QT-113-CD1	CD Emergency Diesel Full Flow Lube Oil Strainer #1	Diesel Lube Oil	Auxiliary	587	CD EDG Lube Oil Pit	258
1-QT-113-CD2	CD Emergency Diesel Full Flow Lube Oil Strainer #2	Diesel Lube Oil	Auxiliary	579	CD EDG Lube Oil Pit	258
1-QT-115-CD	CD Emergency Diesel Lube Oil Sump Tank	Diesel Lube Oil	Auxiliary	579	CD EDG Lube Oil Pit	258
1-QT-116-CD	CD Emergency Diesel Lube Oil Heater Tank	Diesel Lube Oil	Auxiliary	579	CD EDG Lube Oil Pit	258

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-QT-117-CD	CD Emergency Diesel Lube Oil Heater QT-116-CD Pump	Diesel Lube Oil	Auxiliary	579	CD EDG Lube Oil Pit	258
1-QT-118-CD	CD Emergency Diesel Bypass Lube Oil Filter	Diesel Lube Oil	Auxiliary	579	CD EDG Lube Oil Pit	258
1-QT-119-CD	CD Emergency Diesel Bypass Lube Oil Filter QT-118-CD Pump	Diesel Lube Oil	Auxiliary	579	CD EDG Lube Oil Pit	258
1-HV-AFP-BRE-1	Train 'N' Battery Room East Exhaust Fan	Afw Battery Rm Ventilation	Auxiliary	633	Plant Battery Train 'N' Auxiliary Eqi pment Room	263
1-HV-AFP-BRE-2	Train 'N' Battery Room West Exhaust Fan	Afw Battery Rm Ventilation	Auxiliary	633	Plant Battery Train 'N' Auxiliary Eqi pment Room	263

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-FMO-211	Turbine Driven Auxiliary Feed Pump PP-4 Discharge to Steam Generator OME-3-1 Motor Operated Control Valve	Auxiliary Feedwater	Auxiliary	612	East Non-Essential Service Water Valve Gallery	289
1-FMO-241	Turbine Driven Auxiliary Feed Pump PP-4 Supply to Steam Generator OME-3-4 Motor Operated Control Valve	Auxiliary Feedwater	Auxiliary	612	East Non-Essential Service Water Valve Gallery	289
1-FMO-242	West Motor Driven Auxiliary Feedwater Pump PP-3W Supply to Steam Generator OME-3-4 Motor Operated Control Valve	Auxiliary Feedwater	Auxiliary	612	East Non-Essential Service Water Valve Gallery	289
1-XSO-211	Steam Generator #1 Stop Valve MRV-210 Steam Cylinder Train 'A' Dump Valve MRV-211 Control Solenoid	Control Air	Auxiliary	612	East Non-Essential Service Water Valve Gallery	289
1-XSO-212	Steam Generator #1 Stop Valve MRV-210 Steam Cylinder Train 'B' Dump Valve MRV-212 Control Solenoid	Control Air	Auxiliary	612	East Non-Essential Service Water Valve Gallery	289

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-XSO-241	Steam Generator #4 Stop Valve MRV-240 Steam Cylinder Train 'A' Dump Valve MRV-241 Control Solenoid	Control Air	Auxiliary	612	East Non- Essential Service Water Valve Gallery	289
1-XSO-242	Steam Generator #4 Stop Valve MRV-240 Steam Cylinder Train 'B' Dump Valve MRV-242 Control Solenoid	Control Air	Auxiliary	612	East Non- Essential Service Water Valve Gallery	289
1-IFC-315	East Residual Heat Removal Pump PP-35E Discharge Flow Switch	Residual Heat Removal	Auxiliary	573	573 Hallway	573
1-IFC-325	West Residual Heat Removal Pump PP-35W Discharge Flow Switch	Residual Heat Removal	Auxiliary	573	573 Hallway	573
1-AB-A	600VAC Motor Control Center AB-A	600VAC	Auxiliary	587	587 Hallway	587
1-AB-D	600VAC Motor Control Center AB-D	600VAC	Auxiliary	587	587 Hallway	587
1-AB-N	250VDC Valve Control Center AB-N	250VDC Distribution	Auxiliary	587	587 Hallway	587

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-ABV-A	600VAC Valve Control Center ABV-A	600VAC	Auxiliary	587	587 Hallway	587
1-ABV-D	600VAC Valve Control Center ABV-D	600VAC	Auxiliary	587	587 Hallway	587
1-EPT-251	CVCS Centrifugal Pumps Discharge Flow Control Valve QRV-251 Electro-Pneumatic Transducer	Control Air	Auxiliary	587	587 Hallway	587
1-QFA-210	RCP Seal Water Injection to Reactor Coolant Pump PP-45-1 Low Flow Alarm Transmitter	Reactor Coolant Pump Seal Water Inj/Leakoff	Auxiliary	587	587 Hallway	587
1-QFA-220	RCP Seal Water Injection to Reactor Coolant Pump PP-45-2 Low Flow Alarm Transmitter	Reactor Coolant Pump Seal Water Inj/Leakoff	Auxiliary	587	587 Hallway	587
1-QFA-230	RCP Seal Water Injection to Reactor Coolant Pump PP-45-3 Low Flow Alarm Transmitter	Reactor Coolant Pump Seal Water Inj/Leakoff	Auxiliary	587	587 Hallway	587

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-QFA-240	RCP Seal Water Injection to Reactor Coolant Pump PP-45-4 Low Flow Alarm Transmitter	Reactor Coolant Pump Seal Water Inj/Leakoff	Auxiliary	587	587 Hallway	587
1-QFI-200	CVCS Charging Pumps Discharge Flow Indicator Transmitter	CVCS (Charging)	Auxiliary	587	587 Hallway	587
1-AZ-BC	600VAC Motor Control Center AZ-BC	600VAC	Auxiliary	609	609 Hallway	609
1-AZV-A	600VAC Valve Control Center AZV-A	600VAC	Auxiliary	609	609 Hallway	609
1-CMO-410	East CCW Heat Exchanger HE-15E CCW Outlet Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CMO-411	CCW Pumps Suction Crosstie Train 'A' Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CMO-412	CCW Pumps Discharge Crosstie Train 'A' Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	609	609 Hallway	609

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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-CMO-413	CCW Pumps Suction Crosstie Train 'B' Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CMO-414	CCW Pumps Discharge Crosstie Train 'B' Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CMO-415	CCW to Miscellaneous Service Train 'A' Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CMO-416	CCW to Miscellaneous Service Train 'B' Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CMO-419	East RHR Heat Exchanger HE-17E CCW Outlet Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CMO-420	West CCW Heat Exchanger CCW Outlet Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CPS-410	East Component Cooling Water Pump PP-10E Discharge Pressure Switch	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CPS-420	West Component Cooling Water Pump PP-10W Discharge Pressure Switch	Component Cooling Water	Auxiliary	609	609 Hallway	609

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-CTR-415	East Component Cooling Water Heat Exchanger HE-15E CCW Outlet Temperature Recorder Thermal Sensor	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-CTR-425	West Component Cooling Water Heat Exchanger HE-15W CCW Outlet Temperature Recorder Thermal Sensor	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-EPT-310	East RHR Heat Exchanger Flow Control Valve IRV-310 Electro-Pneumatic Transducer	Control Air	Auxiliary	609	609 Hallway	609
1-EPT-311	RHR Heat Exchangers Bypass Flow Control Valve IRV-311 Electro-Pneumatic Transducer	Control Air	Auxiliary	609	609 Hallway	609
1-EPT-320	West Rhr Heat Exchanger Flow Control Valve IRV-320 Electro-Pneumatic Transducer	Control Air	Auxiliary	609	609 Hallway	609
1-HE-15E	East CCW Heat Exchanger	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-HE-15W	West CCW Heat Exchanger	Component Cooling Water	Auxiliary	609	609 Hallway	609

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-IFI-310	East Residual Heat Removal Heat Exchanger HE-17E Outlet Low Range Flow Indicator Transmitter	Residual Heat Removal	Auxiliary	609	609 Hallway	609
1-IFI-311	East Residual Heat Removal Heat Exchanger HE-17E Outlet High Range Flow Indicator Transmitter	Residual Heat Removal	Auxiliary	609	609 Hallway	609
1-IFI-320	West Residual Heat Removal Heat Exchanger HE-17W Outlet Low Range Flow Indicator Transmitter	Residual Heat Removal	Auxiliary	609	609 Hallway	609
1-IFI-321	West Residual Heat Removal Heat Exchanger HE-17W Outlet High Range Flow Indicator Transmitter	Residual Heat Removal	Auxiliary	609	609 Hallway	609
1-PP-10E	East CCW Pump	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-PP-10W	West CCW Pump	Component Cooling Water	Auxiliary	609	609 Hallway	609
1-WMO-731	East Component Cooling Water Heat Exchanger HE-15E Essential Service Water Inlet Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	609	609 Hallway	609

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Equipment Required to Shutdown Reactor (Unit 1)
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<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-WMO-733	East Component Cooling Water Heat Exchanger HE-15E Essential Service Water Outlet Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	609	609 Hallway	609
1-WMO-735	West Component Cooling Water Heat Exchanger Essential Service Water Inlet Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	609	609 Hallway	609
1-WMO-737	West Component Cooling Water Heat Exchanger Essential Service Water Outlet Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	609	609 Hallway	609
12-HV-ACCP-1	CCW Pump Ventilation North Supply Fan	Auxiliary Building Ventilation	Auxiliary	633	633 Hallway	633
12-HV-ACCP-2	CCW Pump Ventilation Middle Supply Fan	Auxiliary Building Ventilation	Auxiliary	633	633 Hallway	633
12-HV-ACCP-3	CCW Pump Ventilation South Supply Fan	Auxiliary Building Ventilation	Auxiliary	633	633 Hallway	633

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-AM-A	600VAC Motor Control Center AM-A	600VAC	Auxiliary	633	633 Hallway	633
1-AM-D	600VAC Motor Control Center AM-D	600VAC	Auxiliary	633	633 Hallway	633
1-BATT-N	Train 'N' Plant Battery	250VDC	Auxiliary	633	633 Hallway	633
1-BATT-N-SH	Train 'N' Plant Battery Ammeter Shunt Cabinet	250VDC	Auxiliary	633	633 Hallway	633
1-BC-A	Train 'N' Battery Distribution Train 'A' Battery Charger	250VDC	Auxiliary	633	633 Hallway	633
1-BC-B	Train 'N' Battery Distribution Train 'B' Battery Charger	250VDC	Auxiliary	633	633 Hallway	633
1-CAS	Containment Auxiliaries Subpanel (Ventilation)	Containment Ventilation	Auxiliary	633	633 Hallway	633
1-CMO-429	West Rhr Heat Exchanger HE-17W CCW Outlet Motor Operated Shutoff Valve	Component Cooling Water	Auxiliary	633	633 Hallway	633

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-DCN	Train 'N' Battery Distribution Panel	250VDC	Auxiliary	633	633 Hallway	633
1-WMO-711	East CS HX HE-18E ESW Inlet Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	633	633 Hallway	633
1-WMO-715	West CS HX HE-18W ESW Inlet Motor Operated Shutoff Valve	Essential Service Water	Auxiliary	633	633 Hallway	633
1-TK-37	Component Cooling Water Surge Tank	Component Cooling Water	Auxiliary	650	650 Hallway	650

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NTP-110A	Reactor Coolant Loop #1 Hot Leg Channel I Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #1	60
1-NTP-110B	Reactor Coolant Loop #1 Hot Leg Channel I Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #1	60
1-NTP-111A	Reactor Coolant Loop #1 Hot Leg Channel I Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #1	60
1-NTP-111B	Reactor Coolant Loop #1 Hot Leg Channel I Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #1	60
1-NTP-112A	Reactor Coolant Loop #1 Hot Leg Channel I Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #1	60
1-NTP-112B	Reactor Coolant Loop #1 Hot Leg Channel I Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #1	60

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NTP-120A	Reactor Coolant Loop #2 Hot Leg Channel II Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #2	61
1-NTP-120B	Reactor Coolant Loop #2 Hot Leg Channel II Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #2	61
1-NTP-121A	Reactor Coolant Loop #2 Hot Leg Channel II Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #2	61
1-NTP-121B	Reactor Coolant Loop #2 Hot Leg Channel II Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #2	61
1-NTP-122A	Reactor Coolant Loop #2 Hot Leg Channel II Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #2	61
1-NTP-122B	Reactor Coolant Loop #2 Hot Leg Channel II Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #2	61

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NTP-130A	Reactor Coolant Loop #3 Hot Leg Channel III Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #3	62
1-NTP-130B	Reactor Coolant Loop #3 Hot Leg Channel III Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #3	62
1-NTP-131A	Reactor Coolant Loop #3 Hot Leg Channel III Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #3	62
1-NTP-131B	Reactor Coolant Loop #3 Hot Leg Channel III Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #3	62
1-NTP-132A	Reactor Coolant Loop #3 Hot Leg Channel III Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #3	62
1-NTP-132B	Reactor Coolant Loop #3 Hot Leg Channel III Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #3	62

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NTP-140A	Reactor Coolant Loop #4 Hot Leg Channel IV Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #4	63
1-NTP-140B	Reactor Coolant Loop #4 Hot Leg Channel IV Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #4	63
1-NTP-141A	Reactor Coolant Loop #4 Hot Leg Channel IV Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #4	63
1-NTP-141B	Reactor Coolant Loop #4 Hot Leg Channel IV Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #4	63
1-NTP-142A	Reactor Coolant Loop #4 Hot Leg Channel IV Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #4	63
1-NTP-142B	Reactor Coolant Loop #4 Hot Leg Channel IV Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	598	Lower Containment, Quadrant #4	63

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NTP-210A	Reactor Coolant Loop #1 Cold Leg Channel I Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	625	Lower Containment, Quadrant #1	60
1-NTP-210B	Reactor Coolant Loop #1 Cold Leg Channel I Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	625	Lower Containment, Quadrant #1	60
1-NTP-220A	Reactor Coolant Loop #2 Cold Leg Channel II Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	617	Lower Containment, Quadrant #2	61
1-NTP-220B	Reactor Coolant Loop #2 Cold Leg Channel II Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	617	Lower Containment, Quadrant #2	61
1-NTP-230A	Reactor Coolant Loop #3 Cold Leg Channel III Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	617	Lower Containment, Quadrant #3	62
1-NTP-230B	Reactor Coolant Loop #3 Cold Leg Channel III Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	617	Lower Containment, Quadrant #3	62

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Equipment Required to Shutdown Reactor (Unit 1)
(for High Energy Pipe Ruptures Outside the Containment)

<u>Equipment ID</u>	<u>Equipment Description</u>	<u>System</u>	<u>Building</u>	<u>Elev</u>	<u>Room</u>	<u>Rm #</u>
1-NTP-240A	Reactor Coolant Loop #4 Cold Leg Channel IV Reactor Protection Input Spare Narrow Range Thermal Sensor	Reactor Coolant	Containment	625	Lower Containment, Quadrant #4	63
1-NTP-240B	Reactor Coolant Loop #4 Cold Leg Channel IV Reactor Protection Input Narrow Range Thermal Sensor	Reactor Coolant	Containment	625	Lower Containment, Quadrant #4	63